

receiver station can only occur after the signals constituting the processor instructions are received at the receiver station.

Similar support for the amendment exists in the 1981 specification. The 1981 specification discloses a microcomputer generated graphic of the viewer's own stocks' performance overlaying the studio generated graphic. *See* 1981 Spec., Col. 19, l. 67 - Col. 20, l. 2. The graphic of the viewer's own stocks' performance is based on the closing stock prices applicable to the stock portfolio stored on the microcomputer that are recorded each weekday at 4:30 PM on the microcomputer. *See* 1981 Spec., Col. 19, ll. 35-41. As noted, the graphic of the subscriber's own stocks' performance is only a "portion" of the "locally generated second completed full-screen video graphic image." Also, the instruction signals (the claimed discrete signals) are embedded in the WSW programming transmission, which is transmitted to the microcomputer at 8:30 PM each Friday (*see* 1981 Spec., Col. 19, ll. 42-48). The organization of the signals into processor instructions at the receiver station can only occur after the signals constituting the processor instructions are received at the receiver station.

### **III. REMARKS**

#### **A. Introduction**

The Final Office Action ("FOA") dated August 27, 2001 has been carefully reviewed and the foregoing amendments made in response thereto.

Claims 56-58, 62-65, 69-70, 73-74, 76, 80-81, 84, 91, 93-95, 100-101, 103-106, 110, 112-114, 116-117, 123-124, 127, 141, 162, 167, 171, 175 & 179 are amended;

claims 75, 77-79, 83, 88, 92, 115, 119, 128, 130-139, 142-161, 177-178 & 180 are cancelled; and

claims 59-61, 66-68, 71-72, 82, 85-87, 89-90, 96-99, 102, 107-109, 111, 118, 120-122, 125-126, 129, 140, 163-166, 168-170, 172-174, 176 & 181-182 remain unchanged.

No new matter is presented in the foregoing amendments. Approval and entry of same is respectfully requested.

Claims 75, 77-79, 83, 88, 92, 115, 119, 128, 130-139, 142-161, 177-178 & 180 are cancelled.

Claims 59-61, 66-68, 71-72, 82, 85-87, 89-91, 96-99, 102, 107-109, 111, 118, 120-122, 125-126, 129, 140, 163-166, 168-170, 172-174, 176 & 181-182 remain unchanged.

Claims 56-63, 65-141, 152-156, 162-179, 181 & 182 are pending in the application.

**B. Summary of Final Office Action**

Paragraphs 1-28 reject claims 56-182 under 35 U.S.C. § 112, first and second paragraphs.

Paragraphs 29-32 reject claims 56-92 under 35 U.S.C. § 103(a) as being unpatentable based on Gargini et al.

Paragraphs 33-39 reject claims 56-79, 84-91, 93-122 & 142-156 under 35 U.S.C. § 103(a) as being unpatentable based on Baker in view of Gargini et al.

Paragraphs 40-41 reject claims 80-92 & 157-161 under 35 U.S.C. § 103(a) as being unpatentable based on Gargini et al. in view of Baker. Applicant believes the Examiner meant to reject claims 80-88, 92, & 157-161, since claims 89-91 depend upon independent claim 56 which was not subject to this rejection.

Paragraphs 42-44 reject claims 56-79, 84-91 & 93-156 under 35 U.S.C. § 103(a) as being unpatentable based on Thonnart.

Paragraph 45 rejects claims 56-79, 84-91 & 93-156 under 35 U.S.C. § 103(a) as being unpatentable based on Thonnart in view of Patfield.

Paragraphs 46-50 reject claims 162-182 under 35 U.S.C. § 103(a) as being unpatentable based on Cox et al. in view of Isam et al. and Beakhurst et al.

Paragraphs 51 & 107 reject claims 56-182 under 35 U.S.C. § 103(a) as being unpatentable based on Campbell et al.

Paragraphs 52 & 53 reject claims 56-74 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Oono et al.

Paragraphs 54-56 reject claims 56-182 under 35 U.S.C. § 103(a) as being unpatentable based on Oono et al. in view of Gunn et al.

Paragraphs 57 & 61 reject claims 56, 60-62 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Hutt et al.

Paragraphs 58-60 reject claims 57-59, 64-74 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Hutt et al. in view of Betts.

Paragraphs 62-63 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on Dufresne et al. in view of Campbell et al.

Paragraphs 64 & 65 reject claims 123-141 under 35 U.S.C. § 103(a) as being unpatentable based on CBS/CCETT North American Broadcast Teletext Specification and Appendix B of "Petition for Rulemaking."

Paragraphs 66 & 67 reject claims 123-141 under 35 U.S.C. § 103(a) as being unpatentable based on BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.

Paragraphs 68 & 69 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on CBS/CCETT North American Broadcast Teletext Specification, Appendix B of "Petition for Rulemaking," and BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.

Paragraphs 70 & 71 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on Editor & Publisher, August 1981 article, "Landmark Forms Cable Weather News Network," in view of CBS/CCETT North American Broadcast Teletext Specification, Appendix B of "Petition for Rulemaking," and BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.

Paragraphs 72 & 73 reject claims 80-83 & 92 under 35 U.S.C. § 103(a) as being unpatentable based on VSA publication, "Systems/NABTS NAPLPS" and/or Mothersole in view of Germany.

Paragraphs 74-84 reject claims 84-88, 93-115 & 142-156 under 35 U.S.C. § 103(a) based on Hedger et al. in view of Gunn et al.

Paragraphs 85 & 86 reject claims 157-161 under 35 U.S.C. § 103(a) based on Diederich.

Paragraphs 87-91 reject claims 75-79, 93-109 & 162-166 under 35 U.S.C. § 103(a) based on Zaboklicki.

Paragraphs 92-101 reject claims 142-156 & 162-182 under 35 U.S.C. § 103(a) based on Oono et al. in view of Matsushita and Rausch.

Paragraph 102 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Galumbeck et al. in view of Editor & Publisher, August 1981 article, "Landmark Forms Cable Weather News Network."

Paragraphs 103 & 104 reject claims 56-74 & 89-91 under 35 U.S.C. § 103(a) based on Dages in view of Oono et al.

Paragraph 105 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Haselwood et al. and Hutt, Anderson, Etkin, O'Connor, "Ancillary Signals for Television Innovations and Implications," and Betts.

Paragraph 106 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett.



**C. Response to Rejections Under 35 U.S.C. § 112**

**1. Rejections Under 35 U.S.C. § 112, First Paragraph**

**a. Written Description**

**(1) Summary of the Law**

The test for compliance with the written description requirement uniformly applied by the Federal Circuit is “whether the disclosure of the application relied upon reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991).

The Examiner’s statement of the test, to the effect that a person of ordinary skill in the art must be able to “immediately discern” the claim from the disclosure, has some limited textual support in the Federal Circuit’s case law. The Federal Circuit has used the term “immediately discernable” to identify the specific and narrow test for the written description requirement as applied to a specific claim limitation.<sup>3</sup> *See Purdue Pharma L.P. v. Faulding, Inc.*, 230 F.3d 1320, 1323 (Fed. Cir. 2000) (“Put another way, one skilled in the art, reading the original disclosure, must immediately discern the limitation at issue in the claims.”). When the cases are read in context, no substantive difference exists between the “reasonably conveying” and “immediately discerning” tests. *See Waldemar Link, GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 558-559 (Fed. Cir. 1994) (“The fact finder must determine if one skilled in the art, reading the original specification, would immediately discern the limitation at issue in the parent . . . In other words, does the disclosure of the application relied upon reasonably convey[s] to the

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<sup>3</sup> In cases in which the Court has applied the immediately discernible test, the focus of the inquiry has been on a particular claim limitation. *See, e.g., Purdue Pharma*, 230 F.3d 1320; *Waldemar Link, GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556. When the inquiry focuses, instead, on the entire claimed invention, the Court describes the test as requiring the disclosure to “reasonable convey” possession of the claimed invention. *See, e.g., Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991); *Kennecott Corp. v. Kyocera Int’l*, 835 F.2d 1419, 1421 (Fed. Cir. 1987).

artisan that the inventor had possession at that time of the later claimed subject matter.” quoting *Wang Labs., Inc. v. Toshiba Corp.*, 993 F.2d 858, 865 (Fed. Cir. 1993)).

Thus, while the Examiner’s articulation of the written description test may have textual basis in the case law, his application of the test to the instant application is unsupported by the law. In applying the “immediately discernible” test to a claim limitation, the artisan must discern the claimed subject matter from the relied upon portion of the disclosure. Accordingly, it turns the “immediately discernible” test on its head to say that because one skilled in the art upon first reading a lengthy disclosure must take time to locate support in various places, he has not demonstrated that the inventor had possession of the claim. The proper application of the test has the artisan look at the relied upon support and determine if the claim limitation at issue can be “immediately discerned” from that portion of the disclosure. There is no case that supports the Examiner’s application of the immediately discernible test, in which he appears to require one skilled in the art to discern the invention from applicants’ entire disclosure in a certain time period. Contrary to the Examiner’s implication, the “immediately discernible” standard does not impose a specific temporal limitation on the artisan to “immediately” discern the invention from the entire disclosure. Instead, what is stressed in the case law is that the disclosure as a whole “reasonably convey” possession of the invention without reference to any other guidance besides the disclosure. So long as appropriate guidance is found in the disclosure, it is of no moment if the artisan spends even a considerable amount of time to locate it.

It is well settled that *ipsis verba* or *in haec verba* support is not required to satisfy the § 112 written description requirement. See *Eiselstein v. Frank*, 52 F.3d 1035, 1038 (Fed. Cir. 1995) (“In order to determine whether a prior application meets the ‘written description’ requirement with respect to later-filed claims, the prior application need not describe the claimed subject matter in exactly the same terms used in the claims; it must simply indicate to persons skilled in the art that as of the earlier date the applicant had

invented what is now claimed.”). Again, the crucial factor in satisfying the written description requirement is understanding whether the inventor had possession of the invention at the time the specification was written. Accordingly, exact or precise matching of terminology in the claims with the terminology in the disclosure is not required. “The adequate written description requirement . . . serves to ensure that the inventor had possession, as of the filing date of the application relied upon, of the subject matter later claimed by him; how the specification accomplishes this is not material.” *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996). Further, “even if every nuance of the claims is not explicitly described,” the requirement is met so long as one skilled in the art “would have understood the inventor to have been in possession of the invention at the time of filing.” *In re Alton*, 76 F.3d at 1175; *see also*, *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562 (Fed. Cir. 1991) (“Precisely how close the description must come to comply with § 112 must be left to case-by-case development.” (quoting *In re Smith*, 458 F.2d 1389, 1395 (C.C.P.A. 1972))).

A disclosure may also implicitly include certain inherent features or properties. In *Kennecott Corp. v. Kyocera Int'l, Inc.*, 835 F.2d 1419 (Fed. Cir. 1987), the court discussed the “inherency” argument while addressing compliance with the written description requirement. The court cited cases for the analogous proposition that words describing a function which is inherent in the claimed invention could be added to the specification of a continuation application without introducing new matter:

By disclosing in a patent application a device that inherently performs a function, operates according to a theory, or has an advantage, a patent applicant necessarily discloses that function, theory, or advantage even though he says nothing concerning it.

*Kennecott*, 835 F.2d at 1422 (quoting *In re Reynolds*, 433 F.2d 384 (C.C.P.A. 1971)). The court further noted in *Kennecott* that the standard applicable to prove inherency to support a limitation in an interference count, that the inherent property or feature is “the necessary and only reasonable construction to be given the disclosure by

one skilled in the art,” was “consistent with that of the other cases on the issue of compliance with section 112, first paragraph.” *Id.* at 1423.

In the FOA, the Examiner fails to acknowledge the principles set forth in *Kennecott* and *Alton* and the fact that the claims may be supported by portions of the disclosure that do not explicitly describe “every nuance” of the claim.

**(2) The Examiner Has Not Met His  
Burden of Proof For His  
Unsupported Rejection of All  
Pending Claims Under § 112-1**

In Section X, the Examiner’s rejects claims 56-182 “under 35 U.S.C. 112, first paragraph, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s) at the time the application was filed, had possession of the claimed invention.” FOA, ¶27 (H&W 91). The Examiner states that this broad rejection is maintained for “the reasons which were addressed in ‘SECTION III.’” The Examiner then proceeds to list in Section X, 36 examples of “112-1 problems.” At the conclusion of the 36 examples, the Examiner concludes that “all of applicant’s currently pending/amended claims 56-182 fail to meet the requirements of section 112-1 for reasons that are the same (and/or similar) to those which have been illustrated above.” FOA (H&W 133).

Setting aside for the moment the few specific arguments and reasons advanced by the Examiner that allegedly support rejections based on § 112-1, applicants maintain that the Examiner’s blanket rejection of all pending claims under § 112-1 fails to meet the his burden to sustain such a rejection. *In re Alton*, 76 F.3d 1168, 1172 (Fed. Cir. 1996), discusses the burden of proof applicable to the written description requirement. The Examiner has the initial burden of presenting a prima facie case of unpatentability by:

[P]resenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. . . . [T]he burden placed on the examiner varies, depending on what the applicant claims. If the applicant claims embodiments of the

invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a prima facie case. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsi verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. Once the examiner or Board carries the burden . . . of coming forward with evidence shifts to the applicant . . . to show that the invention is adequately described to one skilled in the art.

*In re Alton*, 76 F.3d at 1175.

In response to the issues raised in previous Office Actions regarding the adequacy of § 112 written description support, applicants provided in Appendix A to their Response dated June 7, 2000, detailed charts identifying written description support for all of the pending claims. (The charts contained in Appendix A to the June 7, 2000 Response are hereinafter referred to as the “Support Charts”). In doing so, applicants have clearly met their burden under *Alton* of demonstrating that “the specification contains a description of the claimed invention, albeit not *in ipsi verbis*.” *Id.* Accordingly, the Examiner must to “provide reasons why one of ordinary skill in the art would not consider the description sufficient.” *Id.* The Examiner has simply failed to meet this burden for each and every pending claim.

Applicants acknowledge that for certain claim limitations the Examiner has supplied specific reasons and arguments that allegedly explain why one of ordinary skill in the art would not consider the description sufficient. However, these specific reasons and arguments are not sufficient to support a blanket rejection of each and every pending claim. The Examiner “must provide *reasons* why one of ordinary skill in the art would not consider the description sufficient”; the general, unsupported rejection of all pending claims fails to satisfy his burden. *Id.* (emphasis added).

The specific § 112-1 “problems” that the Examiner identifies in Examples 1-36 arguably provide sufficient reasons and support to meet his burden for a rejection under § 112, but these reasons/support are only sufficient with respect to the specific claims

they address. The Examiner's Examples 1-36 only specifically address claims 56, 67-76, 78, 80, 81, 84, 89, 90, 93-109 and 167-182. The conclusory statement at the end of the section that "all of applicant's currently pending/amended claims 56-182 fail to meet the requirements of section 112-1 for reasons that are the same (and/or similar) to those which have been illustrated [in the Examples]" is simply not sufficient to meet the burden imposed on the Examiner to support a rejection under § 112-1.

Similarly, the general discussion of issues related to the § 112-1 written description requirement in Section III of the Final Office Action does not provide the requisite reasons needed to support a rejection of all of the pending claims. Applicants note that nowhere in Section III does the Examiner reference *any* of applicants' pending claims in connection with the arguments advanced in that section. Generic arguments and allegations that are not tied to specific claims can not constitute sufficient reasons that are required to support a proper rejection under § 112.

**(3) Responses to Miscellaneous § 112-1 Problems That Allegedly Support Examiner's Blanket Rejection of All Pending Claims**

Throughout Sections I-IX of the FOA, the Examiner makes numerous unsupported allegations in connection with his argument that none of the claims satisfy the written description requirement of § 112-1. These miscellaneous "allegations" fail to satisfy the Examiner's burden to present "reasons why one of ordinary skill in the art would not consider the description sufficient" in order to sustain a § 112-1 rejection. *In re Alton*, 76 F.3d at 1175. First, none of these allegations are linked to a specific claim pending in the instant application. Second, with one possible exception (i.e., the Examiner's position related to the alleged use of different terminology), the Examiner fails to provide any reasons or examples that arguably support the allegations. Third, positions taken frequently by the Examiner are contrary to the law. Finally, certain

allegations, even if true, do not constitute a proper basis to support a § 112-1 rejection. For these reasons, the allegations discussed below simply do not support the Examiner's rejection of all pending claims under § 112-1.

**(a) The Examiner's Assertion  
That Claims Cannot Be  
Immediately Discerned  
from the Disclosure**

Countless times in the first 100 pages of the FOA the Examiner asserts that, even using the Support Charts, one skilled in the art cannot immediately discern the limitations in the claims from the 1987 disclosure. The assertion that applicants fail the immediately discernable test, no matter how many times and ways the assertion is made, is simply an improper and insupportable basis for rejecting the claims. Further, the Examiner's assertion that the hypothetical person skilled in the art cannot use the Support Charts is without merit. To the contrary, the support identified in the Support Charts is exactly what one skilled in the art would use to determine whether applicants had possession of the claimed inventions.

However, in order to advance prosecution of this application, applicants have supplemented the Support Charts in Section II above by narratively explaining, using detailed specification citations, how each and every claim meets the requirements of 35 U.S.C. § 112. Accordingly, any "rejection" based on this assertion should be withdrawn.

**(b) The Examiner's Assertion  
of Improper Use of the 1981  
Disclosure**

The Examiner also asserts, without support, that applicants have continuously and improperly used the 1981 disclosure, rather than the 1987 version, to show § 112 support for the pending claims. This statement is simply incorrect. While applicants acknowledge that they have, at times, relied on the 1981 disclosure to demonstrate § 112-1 support in order to establish that they are entitled to the 1981 priority date, applicants

understand that, as a threshold matter, written description support must be found in the 1987 disclosure as originally filed and standing alone to satisfy § 112-1. Applicants firmly believe that their reliance at times on the 1981 disclosure was never in any way improper.

**(c) The Examiner's Assertion  
of Improper Use of  
Amended Claims**

The Examiner asserts that applicants are somehow using the knowledge and teachings of the amended claims filed in the instant case as a basis/teaching to satisfy the written description requirement. *See* FOA, §III (H&W 19). This “rejection” is not understood by applicants. The Support Charts, and the explanations provided in Section II above, cite to the 1987 and 1981 specifications — not the claims. Whatever the legal merit of the argument, the Examiner once again fails to provide even a single example to support the allegation, yet again failing to satisfy his burden to support a substantive § 112-1 rejection. This allegation is incorrect and inconsistent with the record. Accordingly, any “rejection” based on this allegation should be withdrawn.

**(d) The Examiner's Assertion  
That the Use of Different  
Words Makes Locating  
Support a Monumental  
Task**

The Examiner asserts that reading and absorbing the 1987 disclosure is “unpleasant and monumental task” that “pales in comparison with the monumental task of trying to decipher the limitations of applicant’s currently pending amended claims based on such a difficult disclosure.” Even if true, this is not a proper basis to support a § 112-1 rejection. *See* FOA, ¶7 (H&W 41). The law is clear that an examiner’s “difficulty” in reviewing an application is not a “reason” sufficient to support a § 112-1 rejection. *See Alton*, 76 F.3d 1168, 1175 (unless the claims are completely outside the



scope of the specification, an examiner must present specific reasons why the specification does not support the claims in order to satisfy the burden of proof required to sustain a rejection under § 112).

The Examiner alleges that the selection and use of “drastically” different words is a “fatal flaw” preventing one from immediately discerning the claim limitations from the 1987 disclosure is incorrect. FOA, ¶7 (H&W 41). Contrary to the Examiner’s position, the law specifically allows an applicant the leeway to use different words to describe the same invention. *See Kennecott*, 835 F.2d at 1422. The Examiner may not be excused from performing his task: he must review the words an applicant uses in a putative claim, apply their fair meaning and determine whether such words appropriately describe the invention even if the applicant’s written description uses different words.

Applicants should not be penalized for providing thorough and detailed disclosures. The public policy reasons underlying the requirement of the disclosure of a thorough description of the invention clearly favors the filing of a detailed specification.

**(e) The Examiner’s Assertion  
That Support Must Be  
Identified in a Single  
Embodiment/Example**

Similarly, the Examiner is mistaken when he states that applicant is “limited to now claiming only those ‘methods’ which were actually described” in each specific example or embodiment in the 1987 disclosure, rather being able to claim operations, methods, or processes that find support in a “mixture of steps from different” operations, methods, or processes described in the disclosure. FOA, (H&W 20-21). An applicant may claim subject matter that finds support in different portions of the disclosure, so long as one skilled in the art would recognize the claimed invention or limitation from the disclosure *as a whole*. *See, e.g., Kolmes v. World Fibers Corp.*, 107 F.3d 1534, 1539 (Fed. Cir. 1997) (concluding that the description requirement was met in part because

“defendant has not shown that the specification as a whole would have failed to convey to one skilled in the art the use of the claimed [invention]”); *In re Wright*, 866 F.2d 422 (Fed. Cir. 1989) (“The specification as originally filed must convey clearly to those skilled in the art the information that the applicant has invented the specific subject matter later claimed. When the original specification accomplishes that, regardless of how it accomplishes it, the essential goal of the description requirement is realized. In deciding the issue, the specification as a whole must be considered.” (citing *In re Ruschig*, 379 F.2d 990, 996 (C.C.P.A. 1967))).

**(f) The Examiner’s Assertion  
of Improper Reliance on  
Twisted/Inconsistent  
Definitions of Terminology**

The Examiner argues that applicants are relying on “twisted” and contradictory meanings for terms present in the claims and the disclosures in order to justify written description support. FOA (H&W 19-20). The Examiner further maintains that it is unclear what is being claimed, because the applicants’ alleged use of art-specific terminology in the pending amended claims forces applicants’ to assign meanings of certain terms that are repugnant to their conventional meanings. FOA (H&W 19-20). In support, the Examiner discusses specific terminology from the claims and disclosures, although no claims are rejected or referenced by claim number. While the Examiner’s arguments ostensibly focus on “terminology” involving a discussion or comparison of the 1981 and 1987 disclosures, it is unclear whether the Examiner is supporting a rejection under § 112-1 or denying applicants’ claim of priority pursuant to § 120. Because of this lack of clarity and for the sake of consistency, applicants respond to these “terminology” issues in the Section III.E.4 of this Response addressing the Examiner position that applicants are not entitled to priority under § 120.

**(4) Responses to the Specific § 112-1  
Problems Identified by Examiner  
in Examples 1-36**

Although the Examiner does not make formal § 112-1 rejections with respect to each specific claim, in the 36 examples found in Section X, the Examiner does identify and discuss various § 112-1 “problems” which are directed to a limited number of claims. At best, the Examiner’s identification of these problems can be construed as an attempt to make formal § 112-1 rejections of the particular claim at issue. In the following section, applicants on a claim-by-claim basis refute the each § 112-1 “problem” identified in the Examiner’s examples.

In Example 1, the Examiner asserts that claims 67-74, 89, 90, 93-109, and 167-182, which include limitations directed to a portion of an image, set forth a non-additive keying process.<sup>4</sup> The Examiner concludes that these claims are not supported by the specification because the specification discloses an additive superimposure process. However, contrary to the Examiner’s assertion, the relevant claim limitations are not limited to a keying process as described by the Examiner. Also, the specifications do not disclose that an additive superimposure is required to practice the claimed invention. Applicants respectfully submit that the specification does reasonably convey to one skilled in the art that the inventors had possession of the claimed subject matter.

The Examiner is incorrect in his assertion that the specification discloses video signals representing the images of Figures 1A and 1B of the specification being added together in their entirety. FOA, §X, Ex. 1 (H&W 93). In the specification, Figure 1A shows how the line representing the subscriber’s portfolio (the overlay) would appear if displayed alone on a TV monitor. Figure 1B shows the image of the graph of the performance of the Dow Jones Industrial Average from the television programming. The specification does not disclose that an image such as shown in Figure 1A is output. To

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<sup>4</sup> applicants propose to cancel claims 177, 178 and 180. Accordingly, the arguments advanced in Example 1 as applicable to these cancelled claims are moot.

the contrary, Figure 1A is used to represent that the overlay has meaning only when output in combination with the graph of the Dow as shown in Figure 1C. The line shown in Figure 1A is a component of a combined image that the subscriber views as Figure 1C.

The Examiner asserts that the specification indicates the need to generate the overlay on a background color that is transparent when overlaid on a separate image. To the contrary, the specification discloses that if the overlay has a background (i.e., if it were to be transmitted alone to a TV monitor), the background would appear as a color that is transparent if overlaid on another video image. 1987 Spec., P. 25, ll. 9-14.

The Examiner argues that the specification discloses an additive superimposure process for displaying a signal representing the overlay, while the claims define a non-additive keying process for displaying the signal. However, applicants' invention as described in the specification and as defined by the claims does not rely on either superimposure or keying processes as described by the Examiner. In Example 1, the Examiner only addresses claim 179.<sup>5</sup> Claim 179 includes the steps of displaying a first completed full-screen video graphic image (first image) and a step of passing only a portion of a second completed full-screen video image graphic image (incomplete image). Claim 179 also includes a step of displaying the second completed full-screen video graphic image (composite image) at a video monitor. The composite image contains the incomplete image and a portion of the first image.

The specification disclosing an incomplete overlay representing a subscriber's portfolio performance displayed over a television image of a graph representing the performance of the Dow shows possession of the recited limitations of claim 179. The television image of the Dow graph shows the claimed first image. The overlay of the subscriber's overlay shows the incomplete image. The combined graph shows the

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<sup>5</sup> applicants note that similar limitations exist in proposed amended claims 167, 171, and 175, and that their response to Example 1 is applicable to those claims. Applicants further note that their response to Example 1 is also applicable to the "portion" limitations recited in claims 67 and 93, and the "replacing less than all of an image" recited in claim 89.

composite image. The Examiner asserts that the claim limitation of a portion of an image limits the claim to a keying process for combining the incomplete image with the first image to form the composite image. To the contrary, any process in which an incomplete image is combined with a complete first image to form a complete second image is contemplated by the claim. Likewise, the significance of applicants disclosure is that instructions in the television programming control the display of an incomplete graphic image with a complete graphic image. The details of superimposition and keying are thus not relevant to whether there is an adequate written description of the claimed invention in the specification.

**(a) Examples Directed to  
Claim 56**

The Examiner asserts in Example 2 that the recited “interactive video apparatus” in claim 56 is not supported by the citation to “signal processing apparatus” in Figure 7 of the 1987 specification or the Wall Street Week example disclosed in the 1987 specification. FOA, ¶26 (H&W 90-91). Applicants’ proposed amendment to claim 56 deletes the term “interactive” from claim 56 and all other pending claims in which that term appeared, thus rendering the issue moot. Notwithstanding this proposed amendment, applicants maintain that the Examiner’s arguments on this issue are without merit.

Contrary to the Examiner’s assertion, the “signal processing apparatus” depicted in Figure 7C does allow for “user input” and, therefore, supports the video apparatus recitation. As discussed above, it is the specification *as a whole* that must describe and support the limitation at issue. *See Kolmes v. World Fibers Corp.*, 107 F.3d 1534, 1539. The 1987 specification discloses that the signal processing apparatus contains the signal processor. This fact is clearly shown in Figures 7A-F. Further, Figures 7A-F and other portions of the specification, *see* 1987 Spec., P. 469-471, clearly indicate that the signal processor allows for user input. Accordingly, the signal processor and the signal

processing apparatus have interactive capabilities with respect to the user. Because the signal processing apparatus has interactive capabilities, it is consistent with the meaning and scope, and fully supports, an “interactive video apparatus.”

The Wall Street Week (“WSW”) disclosure in the 1987 specification also supports “interactive video.” In making the arguments advanced in Example 2, the Examiner fails to recognize what is meant by an interactive system and an automatic system and the relationship between these types of systems. The flaw in the Examiner’s argument is his assumption that an automatic system cannot also be interactive. The two systems are not mutually exclusive. An interactive system can have automatic features and vice versa. The digital alarm clock is a simple example illustrating this point. The alarm clock is interactive because it allows the user to program the alarm to sound the alarm at a certain time. Once the alarm is programmed it automatically will sound at the programmed time each day. The alarm has both interactive and automatic features. The WSW example is similar. In the WSW example, the user must initially input his stock portfolio. Only after this user interaction has occurred will the system automatically receive stock quotes for the user’s portfolio each day. This automatically occurs without any manual input on the part of the user. The system, however, does not work without the initial interaction from the user. This interactive feature is described in the 1987 disclosure (i.e., in the WSW example the calculation of the subscriber’s stock portfolio performance is accomplished by the microcomputer accessing the subscriber’s stock portfolio data file) and one skilled in the art would have clearly recognized that this feature shows that applicants had possession of an interactive video apparatus.

In Example 5 the Examiner similarly claims that “interactive video” is not supported by automatic updating of a local database disclosed in the 1987 specification. *See* Example 5. For the reasons discussed in the previous paragraph, it is clear that applicants’ had possession of an interactive video element. The Examiner’s arguments related to the IEEE definition of interactive are without merit. Contrary to the assertion

of the Examiner, the IEEE definition does not require that *every* action that the system performs be performed in response to a user entry. Instead, the definition simply requires that each user entry cause a response or action by the system. Each *user* entry in the systems described in the 1981 and 1987 disclosures *does* cause a response from or action by the system. The IEEE definition is not inconsistent with the fact that the “automatic updating of a local data base,” which is not performed as a direct response to user entry/interaction, causes a response from or action by the system.

In Examples 3 and 4 the Examiner asserts that “first and second requests to remote data sources” is not supported by either method for updating stock prices disclosed in the 1987 specification. While applicants maintain that the recitation of a first and second request to remote data sources meets all of the requirements of 35 U.S.C. § 112 and is fully supported by both the 1981 and 1987 specifications, applicants have proposed amending claim 56 to render the Examiner’s arguments on this issue moot. Claim 56, as amended, recites “communicating said at least said first request to a remote data source.” As set forth in Section II.A.3 above, this amendment is fully supported by the 1987 and 1981 disclosures.

**(b) Examples Directed to  
Claim 75**

The Examiner makes several arguments directed to certain claim elements recited in claim 75. Applicants have proposed canceling claim 75 and all claims dependent on claim 75. Accordingly, the Examiner’s arguments addressing claim 75 and its dependent claims in Examples 6-13 and 17 are moot. Notwithstanding the proposed cancellation of these claims, applicants maintain that all of the Examiner’s arguments raised in Examples 6-13 and 17 are without merit.

In Example 6 the Examiner maintains that the term “downloadable” is not supported in the 1981 specification because the “instruction signals” and “identifiers” disclosed in the 1981 specification do not constitute collections of data, which, the

Examiner argues, is an element of the conventional meaning of “downloadable. While applicants have proposed to amend all the pending claims to delete the term “downloadable,” the Examiner’s arguments with respect to “downloadable” are without merit. Contrary to the Examiner’s position, the “instruction signals” and “identifiers” disclosed in the 1981 specification clearly are collections of data. The “instruction signals” and “identifier signals” described in the 1981 specification are comprised of “signal units” and/or “signal words.” “[S]ignal units [are] one complete signal instruction or information message unit,” examples of which include “a unique code identifying a programming unit, or a unique purchase order number identifying the proper use of a programming unit, or a general instruction identifying whether a programming unit is to be retransmitted immediately or recorded for delayed transmission.” 1981 Spec., Col. 2, l. 64 - Col. 3, l. 3. Purchase order numbers, unique codes, and general instructions all are examples of information that must be represented by collections of data. Accordingly, one skilled in the art would immediately recognize that the signal units, which are transferred to remote stations, could be comprised of a collection of data as opposed to a single bit of datum. Alternatively, the “instruction signals” and “identifier signals” may be comprised of “signal words.” The 1981 specification clearly states that “[e]xamples of signal words are a string of one or more digital data bits encoded together on a single line of video or sequentially in audio.” 1981 Spec., Col. 3, ll. 6-8. The examples of signal words clearly demonstrate that signal words, and the “instruction signals” and “identifier signals” comprised of signal words, constitute collections of data.

The Examiner also asserts in Example 6 that the “instruction signals” and “identifier signals” do not support the recitation of “downloadable” because they did not constitute collections of data which were transferred from a memory of one computer to another within the conventional meaning of the term downloadable. Applicants submit that this aspect the definition of download (i.e., data which are transferred from a



memory of one computer to another) is inherent in the data described in the specification. The data (comprising instruction signals and identifier signals) is in a form that is transferred to a remote user station and, therefore, is necessarily in a form that can be transferred from a memory of one computer to another within the conventional meaning of the term downloadable. Accordingly, even using the Examiner's definition of "download," the 1981 disclosure of "instruction signals" and "identifier signals" demonstrate that applicants were in possession of the "downloadable" claim term.

In Example 7 the Examiner further asserts that while support may exist in the 1987 application,<sup>6</sup> the support cited by applicants in the 1987 specification does not support "programmed to process downloadable processor instructions." applicants submit that both portions of the 1987 application support the downloadable element. As the relied upon support from the 1987 application (i.e., 'microprocessor (205) of the receivers were programmed to respond to instruction signals which were embedded within received TV programming') is virtually identical to the 1981 application, the 1987 support meets the written description requirement for the same reasons identified in the previous paragraph. Additionally, as the Examiner acknowledges, the 1987 application supports the downloadable element because the disclosure specifically describes the downloading of data that is transferred to remote stations. *See* 1987 Spec., P.24, ll. 5-21.

In Example 8, the Examiner argues that the steps of "receiving at one of said first transmitter station and a second transmitter station said downloadable code" and "receiving said at least one control signal at said one of said first and second transmitter stations" are not sufficiently supported by the single step of "second series of instructions" being received in the 1987 disclosure. The flaw in the Examiner's argument raised in Example 8 is that the "second series of instructions" step actually consists of

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<sup>6</sup> The Examiner acknowledges that support for the "downloadable instruction" terminology may be found in the "program instruction set" disclosure of the 1987 application (if "program instruction set" was provided as part of the "second series of instructions." FOA, §X, ¶7 (H&W 103).

two sub-steps, rather than one single step. Because the “second series of instructions” step sufficiently describes both of the steps at issue in the proposed canceled claim 75, there is sufficient support to meet § 112-1. The relied portion of the 1987 disclosure states:

[A] second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words . . . .

1987 Spec., P.32, l. 35 - P. 24, l. 9.

Accordingly, the embedding and transmitting of the second series of instructions involves sending and receiving 1) initial signal word or words, which are followed by 2) a particular set of instructions. The step of “receiving said at least one control signal at said one of said first and second transmitter stations” is supported by the aspect of the second series of instructions step in which an initial signal word(s) is(are) sent and received. The step of “receiving at one of said first transmitter station and a second transmitter station said downloadable code” is supported by the aspect of the second series of instructions step in which a particular set of instructions are sent or received.

In Example 9, the Examiner asserts that the step of “receiving at one of said first transmitter station and a second transmitter station said downloadable processor instructions” in proposed canceled claim 75 is not supported by the 1987 disclosure because the disclosure only describes instructions that are “embedded and transmitted.” The Examiner concludes by asserting that because the specification does not mention “receiving” the instructions, there is inadequate support. While issue raised by the Examiner is moot due to the cancelled claim, applicants submit that the “receiving” step is disclosed in the specification.

In the WSW example from the 1987 specification, applicants disclose an intermediate transmitter station, the broadcast station WNET, that “commences transmitting a television program about stock market investing.” 1987 Spec., P. 20, ll. 25-26. The specification discloses that “said WNET station is an intermediate transmitter station for said program which actually originates at a remote television studio at in Owings Mill, Maryland.” 1987 Spec., P. 20, ll. 25-26. The specification further discloses that “[f]rom said program origination studio said program is transmitted . . . to a large number of geographically dispersed intermediate transmission stations that retransmit said program to millions of subscriber stations where subscribers view said program.” 1987 Spec., P. 20, l. 31 - P. 21, l. 2.

Clearly, the specification inherently discloses the step in which the intermediate transmitter station receives the program from the program origination studio before the transmitter station retransmits the program to millions of subscriber stations. The receiving element or step is necessarily an element of system that is explicitly disclosed and the disclosure of this inherent step is the only reasonable construction to be given the disclosure by one of ordinary skill in the art. Without speculation as to what applicants may have envisioned, one of ordinary skill in the art would have understood that an origination station that transmits programming does receive that programming and does deliver a signal containing that programming to a transmitter. Accordingly, the step of “receiving . . . . downloadable processor instructions” is inherently disclosed in the 1987 specification.<sup>7</sup>

In Example 10, the Examiner argues that the phrase “at least one receiver station” in proposed canceled claim 75 is not supported by the 1987 disclosure because the disclosure actually teaches away from a one receiver station configuration. Similarly, the

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<sup>7</sup> applicants note that they have amended all of the relevant pending claims to remove steps directed receiving information at an origination station to focus the claim more particularly on the transmission aspects of the origination transmitter station. Accordingly, the Examiner’s arguments on this issue are moot.

Examiner argues that the recitations of “at least one control signal,” “at least one datum,” “at least one of completes and supplements,” “at one of a first transmitter and a second transmitter,” “at least one of said downloadable processor instructions” are not supported by the 1987 disclosure. Contrary to the Examiner’s assertion, one skilled in the art would have clearly recognized from the 1987 disclosure that applicants had possession of the disclosed invention in which the features alleged by the Examiner as unsupported in the specifications were present. There is nothing in the disclosure that teaches away from the use of the single elements discussed in this Example. There is no suggestion, for example, that the disclosed invention would work with two control signals, 2 million control signals or any number of control signals, *but not* with one control signal. The Examiner’s assertion that applicants are not entitled to claim “at least one” of the recited elements is tantamount to requiring applicants to recite every element disclosed in the specification in the claim. This view, of course, finds no support under the controlling authority. Accordingly, applicants are entitled to claim “at least one” of the recited elements.

In Example 11 the Examiner states that the term “signal detector” in proposed canceled claim 75 is not sufficiently supported by the disclosure of “decoder 203” in the 1987 specification. The Examiner argues that because the disclosed decoder performs *digital* information detection and conversion into *digital* signals, only a digital information detector is disclosed, not a signal detector. As the Examiner recognizes, the disclosed decoder functions as a *digital* information detector. Applicants submit that digital information is a form of a signal, as applicants use that term. *See* 1987 Spec., P. 34, ll. 21-28. Accordingly, the disclosure of “decoder 203” supports a signal detector. Applicants maintain that the recitation of a signal detector meets all of the requirements of 35 U.S.C. § 112 and is fully supported by both the 1981 and 1987 specifications.

The Examiner further asserts in Example 11 that the terms “control signal” and “downloadable processor instructions” in the proposed canceled claim 75 are not

supported by the use of different terminology in the disclosure (namely, the support of “control instructions” for “control signal” and the support of “instruction signals” in the WSW example for “downloadable processor instructions”). Applicants’ use of different terminology to describe their invention is not a proper basis for a rejection. *See Kennecott*, 835 F.2d at 1422 (“[A]n invention may be described in many different ways and still be the same invention.”). For purposes of clarity, applicants note that: 1) “instructions” and “signals” generally are expressions, representations or manifestations of abstract information or data; the “instructions” and “signals” disclosed in the 1987 and 1981 specifications are routinely transmitted to computers; 2) instructions and signals can either control or instruct computers to do something; 3) instruction signals are signals that instruct a computer to do something; and 4) control signals are signals that generally control the operation of the computer or control the operation other instructions or signals.

In Example 12 the Examiner further argues that the “second image” element of proposed canceled claim 75 containing datum that “one of completes and supplements” is unsupported by disclosure relied upon by applicant. The Examiner asserts that the cited 1987 disclosure supports supplementing, and the combination of supplementing and completing, but the disclosure does not support *only* completing. Applicants submit that the claim limitation “one of” is not the equivalent of an exclusive “or” (i.e., one or the other is required, but not both). Accordingly, the disclosure of both supplementing and completing supports the “one of” limitation. Further, the disclosure of “supplementing and completing” sufficiently discloses both independent steps of supplementing and completing. As *each* of these steps are disclosed, the specification necessarily discloses the sole step of completing and supports the “one of” limitation.

In Example 13 the Examiner argues that the steps of receiving processor instructions, transferring processor instructions to a transmitter, receiving a control signal, transferring the control signal to transmitter, transmitting an information

transmission and the recitation that the downloadable processor instructions have a target processor to process data, are insufficiently supported by the disclosure relied upon by applicants. Specifically, the Examiner asserts that the relied upon disclosure does not support receiving at least one control signal at one of said first and second transmitter stations. Applicants maintain that the step of *receiving* at least one control signal is inherently disclosed in the 1987 specification. A control signal, like the processor instructions discussed in Example 9, must necessarily be received before they are transmitted. For the same reasons that are discussed in applicants' response to the Examiner's Example 9, the recitation of *receiving* at least one control signal is inherently disclosed in the description of transmitting at least one control signal from the first and second transmitter stations. Further, as discussed above, this issue is moot in light of applicants' proposed amendments.

The Examiner, also asserts in Example 13 that the recited "second transmitter station" is not supported by the cited support. Although claim 75 is proposed to be canceled, applicants maintain that the recitation of a second transmitter station in proposed canceled claim 75 meets all of the requirements of 35 U.S.C. § 112 and is fully supported by both the 1981 and 1987 specifications. Applicants clearly disclose in both specifications origination and intermediate transmitter stations that transmit control signals and/or other transmission information. Further, as already discussed in the previous paragraph, both specifications inherently disclose that control signals and other transmission information are received at the origination and intermediate transmitter stations. Accordingly, the "second transmitter station" of proposed canceled claim 75 could be supported by either an origination transmitter station or intermediate transmitter station in the 1987 specification.

**(c) Examples Directed to  
Claim 76**

In Example 14 the Examiner asserts that the step of “receiving” “at least a portion of an image” in claim 76 is not supported in the 1987 specification because the disclosure only supports transmitting an entire image. Applicants note that they have proposed amending claim 76 in a manner that renders the Examiner’s arguments directed to claim 76 in Example 14 moot. Notwithstanding the proposed amendment of claim 76, applicants maintain that the arguments raised by the Examiner in Example 14 are without merit. A complete image includes a portion of an image. Accordingly, the disclosure of receiving a whole image necessarily supports receiving at least a portion of an image. Applicants maintain that the step of *receiving* at least said portion of the video image is inherently disclosed. The portion of the video image, like the processor instructions discussed in Example 9, must necessarily be received before they are transmitted. For the same reasons that are discussed in applicants’ response to the Examiner’s Example 9, the recitation of *receiving* at least said portion of the video image is inherently disclosed in the description of transmitting at least said portion of the video image from the transmitter station.

**(d) Examples Directed to  
Claim 78**

In Example 15 the Examiner further alleges that the recitation in Claim 78 of “downloadable processor instructions programs said processor to output video” is unsupported by 1987 disclosure because the “downloadable processor instructions” in the disclosure *generate* a video image, but do not cause *output* of a video image. Applicants note that they have proposed canceling claim 78. Accordingly, the Examiner’s arguments directed to claim 78 in Example 15 are moot. However, applicants maintain that the arguments raised by the Examiner are, nevertheless, without merit.

The Examiner asserts that the “output” is accomplished by a “graphic on” command in the disclosure. Applicants maintain that the downloadable processor instructions generate and output the video image. The 1987 disclosure states that the program instruction set generates the video image. 1987 Spec., P. 24, l. 22 - P. 25, l. 8. The specification further discloses that an instruction signal causes the output of an image. The “instruction signal is generated at said originating studio,” embedded in the programming, transmitted/transferred to microcomputer “and executed by microcomputer, 205, at the system level as the statement “GRAPHICS ON.” 1987 Spec., P.25, l. 34 - P. 26, l. 4. The Examiner’s assertion that the output “is accomplished by a ‘graphics on’ command” is only half correct because it is the *instruction signal* that is executed at the computer as the ‘graphic on’ command. Further, applicants have consistently used the term “downloadable processor instructions” to refer to *all* instructions and signals that are transmitted to the microcomputer. Accordingly, the downloadable processor instructions are comprised of *both*: 1) the program instruction set that *generates* the video image; and 2) the instruction signal that causes the execution of the “GRAPHICS ON” command, which in turn causes the *output* of a video image. In this manner the downloadable processor instructions support the generation and output of a video image.

Additionally, the Examiner argues in Example 15 that the recitation of “one of simultaneous and sequential” output in proposed canceled claim 78 is not supported in the disclosure because the disclosure only describes *both* simultaneous and sequential output. Although the issue is moot, the recitation of “one of simultaneous and sequential” output is supported in the 1987 disclosure. The 1987 specification discloses downloadable processor instructions which program the processor to output the video depicted in FIG. 1B simultaneously with the video presentation depicted in FIG. 1A. This scenario is clearly described in pages 24-26 of the 1987 specification. After this scenario is finished, an instruction signal is transmitted to the microcomputer and



executed at the microcomputer as “GRAPHICS OFF.” 1987 Spec., P. 26, l. 33 - P. 27, l. 1. The microcomputer then “continues to operate under control of [additional/sequential] received instructions. 1987 Spec., P. 27, ll. 8-9. If these additional “received instructions” (additional ones of the recited downloadable processor instructions) are received, another video output, similar to the video depicted in FIG. B but depicting a different stock’s performance, is sequentially generated/displayed. All of the instructions that are sequentially transmitted to the microcomputer are collectively the recited downloadable processor instructions. Accordingly, the 1987 specification supports the recitation of “one of simultaneous and sequential” output of video.

In Example 16 the Examiner claims that the 1987 specification simply discloses downloadable processor instructions that program a processor at receiver stations with intelligence to generate a video image to be outputted and overlaid at each receiver station. Accordingly, the Examiner maintains that this disclosure does not support the recitation in proposed canceled claim 78 in which the downloadable processor instructions program the processor to 1) output the generated images; 2) to process a subscriber’s reaction to presented images; and 3) to select information that supplements the video presentation. As already explained in applicants’ response to the Examiner’s Example 15, the 1987 disclosure clearly supports the output of generated images by downloadable processor instructions. The 1987 disclosure also supports the downloadable processor instructions processing a subscriber’s reaction to presented images. The specification describes that the initial instructions of the collective “downloadable processor instructions” have programmed the processor to process the subscriber’s reaction to presented images: “Operating in said preprogrammed fashion under control of said first set of instructions, microcomputer, 205, reaches a stage at which the subscriber can input information . . .” 1987 Spec., P. 23, ll. 14-15. The Examiner’s assertion that the downloadable processor instructions did not program the processor to process the subscriber’s reaction is unsupported. Clearly, the initial

processor instructions, or any earlier processor instructions, can preprogram the processor to process the subscriber's reactions. Again, the term downloadable processor instructions is supported and consistently interpreted to refer to *all* instructions and signals that are transmitted to the microcomputer. The 1987 disclosure also supports downloadable processor instructions selecting information that supplements the video presentation. The fact that the downloadable processor instructions are that which is selected does not preclude the downloadable processor instructions from programming the processor to make the selection. For example, the initial signal word of a program instruction set may instruct the processor to load the program instruction set which creates the supplemental overlay.

**(e) Examples Directed to  
Claim 80**

In Example 17, the Examiner acknowledges applicants' disclosure of a system with a plurality of receiver stations permits them to claim a method for "delivering a presentation to *a receiver station*." Surprisingly, though, the Examiner asserts that applicants are not entitled to claim a method for "delivering a presentation to *at least one receiver station*." The Examiner's position is untenable. Unlike a specific numeric range in, for example, an invention in the chemical arts where a specific numeric range can be a crucial aspect of the claimed invention, the range of "at least one" meets all of the requirements of 35 U.S.C. § 112 and is fully supported by a disclosure in which the system described works with *any number* of devices or features used in the system. The Examiner's position regarding the alleged lack of support for the range of "at least one" in Examples 17, 19 and 25 is incorrect for the same reasons discussed in this paragraph and in applicants' response to Example 10.

In Example 19 the Examiner further argues that the recitation in claim 80 of a range of "at least one signal" is unsupported by the cited disclosure because the disclosure only provides for the detection of the presence of *many* signals. Applicants'

response to the Examiner's arguments raised in this Example is addressed in applicants' response to Example 10.

In Example 20 the Examiner asserts that the steps for receiving video and transferring the video to a transmitter in claim 80 are not supported by the cited disclosure, which only discloses transmitting programming. Applicants have proposed amending claim 80 to recite "transmitting a signal from an origination transmitter to a remote intermediate transmitter station . . . ." Accordingly, claim 80 no longer includes the step of receiving video at an origination station. While applicants maintain that the recitation of the steps of receiving video and transferring the video to a transmitter meets all of the requirements of 35 U.S.C. § 112 and is fully supported by both the 1981 and 1987 specifications, applicants' amendments to claim 80 render the Examiner's arguments on this issue moot.

In Example 21 the Examiner further claims that the recitation in claim 80 in which an "instruct signal" is operative to cause a receiver station to "at least one of generate and output a local portion of a video presentation" is not supported by the disclosure relied upon by applicants. The Examiner maintains that the cited disclosure does not support the claim element because the "GRAPHICS ON" instruct signal only outputs previously generated image.

The recited "instruct signal" refers to an instruct signal generally. The processor instruction set consists of instruct or instruction signals (instruct and instruction signals are synonymous), that generate the video image. 1987 Spec., P. 24, l. 22 - P. 25, l. 8. Further, the "instruction signals" that cause the output of an image are also "instruct signals." 1987 Spec., P. 25, l. 34 - P. 26, l. 4. Accordingly, the disclosure of the processor instruction set and instruction signals, both of which are examples of instruct signals, sufficiently supports the recitation of instruct signals which generate and output a video image.

In Example 22 the Examiner asserts that the recitation in claim 80 of *receiving* the control signal is not supported by the disclosure of *transmitting* intermediate-station-control messages in the 1987 specification. Applicants have proposed amending claim 80 to recite “transmitting at least one control signal from said origination transmitter to said remote intermediate transmitter station . . . .” Accordingly, as amended claim 80 no longer includes the step of receiving a control signal at an origination station. While applicants maintain that the recitation of the step of receiving a control signal at an origination station meets all of the requirements of 35 U.S.C. § 112 and is fully supported by both the 1981 and 1987 specifications, applicants’ proposed amendments to claim 80 render the Examiner’s arguments on this issue moot.

Finally, in Example 23 the Examiner argues that the step of “receiving . . . at least one control signal . . . [that] controls the communication of at least one of said video and said instruct signal” in claim 80 is not supported by the cited portions of the 1987 disclosure. The Examiner maintains that the cited portions of the specification fail to disclose the step of receiving a control signal that controls the communication of at least one of video and instruct signal. Applicants maintain that the 1987 disclosure supports the recited step of the control signal controlling the communication of at least one of the video or instruct signal at the remote intermediate transmitter station. The disclosure clearly describes a control signal that is transmitted to the intermediate transmitter station (prior to the transmission of the WSW program to the intermediate transmitter station) that controls the timing of the communication of the WSW program from the intermediate transmitter station to the receiver station. 1987 Spec., P. 430, ll. 21-27. The WSW program contains: 1) the video that is the program content, and 2) embedded instruction signals. Accordingly, the disclosure supports the step of a control signal controlling the communication of at least one of the video or instruct signal at the remote intermediate transmitter station. Further, applicants submit that the claim limitation “at least one of” is not the equivalent of an exclusive “or” (i.e., one or the other is required,

but not both). Accordingly, the disclosure supporting both alternatives of controlling the communication of the video or instruct signal, also supports the “at least one of” limitation of the same.

**(f) Examples Directed to  
Claim 81**

In Example 24 the Examiner asserts, without providing any specific reasons, that several steps recited in claim 81 are not support by the cited portion of the 1987 specification because the steps are not “immediately discernible” from disclosure. As the Examiner fails to provide even a single reason or example in support of his allegation, the allegation does not support a § 112-1 rejection. Although no reasons or examples are provided, applicants note that second control signal recited in claim 81 is supported in the 1987 specification. The 1987 specification provides support for the limitations of proposed claim 81 as amended within at least the description the WSW 1987 example. In particular, within discussion of the processing of the WSW programming at an intermediate station “a particular intermediate-station-control message” (at least one control signal) is included in the WSW programming. 1987 Spec., P. 430, ll. 3-5. One intermediate-station-control message is recited as *a Prepare-To-Retransmit-Television-Program-Unit* message. 1987 Spec., P. 430, ll. 5-6. The *Prepare-To-Retransmit-Television-Program-Unit* message includes a “program unit identification code” (information). 1987 Spec., P. 431, ll. 6-8. The “program unit identification code” identifies the WSW program, which is a portion of the transmission on a particular channel (information transmission). 1987 Spec., P. 431, ll. 7-8. The transmission on the particular channel is a television transmission and thus includes video. The portion of the information that is identified by the program unit identification code is the “Wall Street Week” program. In the general discussion of the operation of intermediate stations it is disclosed that other information (second control signal) can be included in a SPAM message in addition to the “program unit identification code.” 1987 Spec., P. 330, l. 14 –

P. 223, l. 4. This other information may indicate the start point of a given program unit to be played controlling communication. P. 330, ll. 19-24.

**(g) Examples Directed to  
Claim 84**

In Example 18, the Examiner states that the term “signal detector” in claim 84 (like the “signal detector” in claim 75) is not sufficiently supported by the disclosure of “decoder 203” in the 1987 specification. The Examiner argues that because the disclosed decoder performs *digital* information detection and conversion into *digital* signals, only a digital information detector is disclosed, not a signal detector. Applicants’ response to the Examiner’s arguments raised in this Example is addressed in applicants’ response to Example 11.

In Example 25 the Examiner also asserts that the recitation of “at least one receiver station” in claim 84 is not supported by the *plurality* of receiver stations disclosed in the 1987 specification. Applicants’ response to the Examiner’s arguments raised in this Example is addressed in applicants’ response to Example 10.

In Example 26 the Examiner asserts that the recited detection of “at least one signal” in claim 84 is not sufficiently supported by the disclosure in the 1987 specification of “detection of embedded instruction information.” The Examiner takes issue with the disclosed support of the detection of instruction information to support the recitation of the detection of signals. Applicants maintain no decoder can detect “information” per se — decoders can only detect physical or electrical expressions of information. Applicant’s 1987 disclosure clearly states that the decoder detects “the embedded instruction information.” 1987 Spec., P. 22, l. 23. As embedded instruction information is described throughout the specification as being represented as signals, the decoder described in the specification is actually detecting the signals (i.e., the manifestations of the embedded instruction information). *See also* Example 11.

In Example 27 the Examiner asserts, without explanation, that in their last response applicants have not shown support in the 1987 disclosure for:

“at least one processor instruction “ that was provide [sic] by the receiver station comprised an “information content” and

said “information content” of the “at least one processor instruction” that was provide [sic] by the receiver station was “of separate ones of a plurality of discrete signals.”

FOA, Example 27.

While the Example does not reference a claim, applicants assume that the Examiner was referring to various portions of claim 84. As the Examiner fails to provide even a single example in support of his allegation, the allegation does not support a § 112-1 rejection. Notwithstanding applicants’ objection, applicants maintain that claim 84 is fully supported in the 1987 specification. In the 1987 specification it is disclosed that signals may convey information in discrete words (separate ones of a plurality of discrete signals), transmitted at *separate* times or in *separate* locations, that the receiver apparatus (at a receiver station) must assemble (organize) in order to receive one complete instruction (processor instruction). 1987 Spec., P. 14 ll. 22-25. The signal words contain information (information content). For example the signal words may be a string of digital *data* bits. 1987 Spec. P. 14, l. 35 - P. 15, l. 1.

In Example 28 the Examiner further asserts that the recited “plurality of discrete signals,” “separate ones” of said plurality of discrete signals, “information content” of said “separate ones,” and “at least one processor instruction” that was comprised of said “information content” in claim 84 are not supported by cited disclosure. As the Examiner fails to provide even a single reason or example in support of his allegation, the bald allegation does not support a § 112-1 rejection. Applicants maintain that all of the terms and elements of claim 84 are fully supported in the 1987 specification as discussed in the previous paragraph.

In Example 29 the Examiner also argues that the steps of “receiving video” and “delivering said video to transmitter” in claim 84 are not supported by the portion of the disclosure cited by applicant, because the cited disclosure only discloses the steps of generating and transmitting studio graphics. The portion of the 1987 specification relied upon by applicants (1987 Spec., P. 25, ll. 28-31) is directed specifically to receiving, delivering and transmitting video. Further, this portion of the 1987 specification is part of the overall WSW example discussed in applicants’ response to Example 9. Accordingly, the studio generated graphic that is transmitted must be read and understood in the context of the WSW example. In the WSW example it is clear that a studio generated graphic is transmitted from the program origination studio to the intermediate station, and that the intermediate transmitter station retransmits the graphic to the millions of subscriber stations. As discussed in the response to Example 9, the steps of receiving the video/programming at the intermediate transmitter station and delivering the video/programming to a transmitter, so that the video/programming can be retransmitted to the subscriber stations are inherently disclosed in the specification. Accordingly, for the same reasons that are discussed in applicants’ response to the Examiner’s Example 9, the recitation of the steps of *receiving and delivering* video are supported inherently by the disclosure of the steps of generating and transmitting studio graphics in the WSW example from the 1987 specification.

In Example 30 the Examiner asserts that the step of “receiving a first discrete signal” in claim 84 is not supported by cited disclosure which only identifies the steps of embedding and transmitting. For the same reasons that are discussed in applicants’ response to Examiner’s Example 9, the recitation of *receiving* a first discrete signal is supported inherently by the disclosure of the steps of embedding and transmitting a first discrete signal.

In Example 31 the Examiner further asserts that it is not clear where the 1987 disclosure “described/defined ‘the information content’, of the separate ones of the



plurality of discrete signals, that comprises the 'processor instruction' that are provided at the receiver station by the first discrete signal." FOA, Example 31 (H&W 127). The Examiner questions where applicants can support "information content." Support for "information content" resides in the 1987 disclosure of "signals which may convey information in discrete words." The Examiner also questions where applicants can support the recited "first" and "second" discrete signals. The discrete signals refer to the disclosure of discrete words that the receiver apparatus organizes to comprise the processor instructions. The composition and organization of instructions generally is described on P. 14 of the 1987 specification.

In Example 32, the Examiner argues, without providing reasons to support his argument, that the following step from claim 84 is unsupported by the 1987 disclosure:

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver locally generated image for display in conjunction with said video;

Claim 84.<sup>8</sup>

As the Examiner fails to provide even a single reason or example in support of his allegation, the allegation does not support a § 112-1 rejection. Applicants' objection notwithstanding, the steps of claim 84 that are discussed in Example 32 are fully supported in the 1987 specification. In the 1987 specification it is disclosed that a second series of instructions (at least one processor instruction) is detected at the receiver station. 1987 Spec., P. 24, l. 2. The second series instructs the receiver station to enter (deliver) digital bit information to a graphics card. 1987 Spec., P. 25, ll. 2-3. The digital bit

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<sup>8</sup> applicants note that they have proposed amending claim 84 such that the step quoted above further recites the following at the end of the step: "said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction;"

information represents the performance of a subscriber's stock portfolio (locally generated image). 1987 Spec., P. 24, ll. 25-26. The stock portfolio performance image is overlaid onto received composite video (displayed in conjunction with video). 1987 Spec., P. 26, ll. 5-7. The second series of instructions, like all complete instructions, is conveyed in discrete words (plurality of discrete signals), transmitted at separate times or in separate locations, that the receiver apparatus must assemble (organize). 1987 Spec., P. 14, ll. 22-25. In other words, one of the discrete words (first discrete signal) of the second series of instructions is organized with another discrete word (second discrete signal). The reception of the first discrete word enables the first discrete word to be assembled with other discrete words to form one complete instruction.

In Example 33, the Examiner asserts that the step of "transmitting" said "first discrete signal" (i.e., the signal whose function has specifically been defined in the claim) is not clearly disclosed in the 1987 specification. As the Examiner does not elaborate on or provide any examples to support his allegation, the allegation does not support a § 112-1 rejection. This objection noted, the step of "transmitting" said "first discrete signal" is fully supported in the 1987 specification. The Examiner asserts with respect to claim 84 that the steps of "receiving," "transferring" and "transmitting" the recited first discrete signal are not supported in the 1987 specification by the relied upon disclosure of embedding and transmitting a second series of instructions at a program origination studio. As discussed in their response to Example 9, applicants maintain that the steps of receiving, transferring and transmitting the first discrete signal are inherently disclosed in the relied upon disclosure. The first discrete signal must necessarily be received, transferred and transmitted because the first discrete signal is a part of the second series of instructions. Accordingly, the first discrete signal must be received, transferred and transmitted when the second series of instructions is embedded and transmitted.

**(h) Examples Directed to  
Claim 93**

In Example 35, the Examiner asserts that applicants' broad or generic discussion of SPAM in the 1987 disclosure fails to support claim 93 "as a whole" in an immediately discernible fashion. The Examiner argues that applicants' relied upon "general" support is too broad to support claim 93 and that applicants' relied upon "specific" support is too specific to support claim 93 because the teachings are only discussed in terms of each recitation. It appears that the Examiner is asserting that applicants must demonstrate support for claim 93 using the "general" support or the "specific" support, but not both types of support. There is no reason why applicants cannot rely on different portions of the disclosure to support claim 93 and its various aspects and limitations. Applicants further maintain that the "general" support, while describing the WSW example generally, nevertheless does address and sufficiently describe the specific claim limitations that are recited in claim 93. Applicants also maintain that the identified "specific" support, while describing certain individual aspects of the claimed invention, also, when considered collectively, clearly conveys the claimed subject matter recited in claim 93 "as a whole." To further clarify the support on which applicants rely to support claim 93, applicants have provided a narrative discussion of how important features of claim 93 are supported in both specifications. As demonstrated by this narrative discussion of support, in addition to all of the support applicants have previously provided, applicants maintain that one skilled in the art upon reading both cited portions of the 1987 disclosure would have understood that applicants had possession of all the aspects and limitations of the invention recited in claim 93.

In Example 36, the Examiner argues that the recitation of an "information transmission" containing "at least one first discrete signal and at least one control signal" in claim 93, is unsupported by applicants' 1987 disclosure, which does not describe *both* signal words and messages. While the Examiner appears to acknowledge that the

specification discloses information transmission that includes messages, the Examiner appears to argue that signal words are not present in the disclosed information transmission because the “‘signal words’ were actually *derived* by detecting embedded information within the messages that were contained within the ‘information transmission.’” The Examiner’s argument fails to recognize that “in all cases signals may convey information in discrete words,” 1987 Spec., P. 14, ll. 22-24, and that “[a]s said detected information is inputted, buffer, 39A, receives, buffers, and transfers said information, signal word by signal word.” 1987 Spec., P. 163, l. 34 - P.164, l. 2. Therefore, the information transmission is comprised of signal words that are transferred or conveyed, signal word by signal word. Accordingly, the 1987 disclosure clearly does support the recitations of “at least one control signal” and “at least one first discrete signal” contained in the information transmission in claim 93.

**b. Responses to Examiner’s Rejections  
Based on § 112 For Lack of Enablement  
(All Claims Directed to the  
Processing/Distribution of Digital  
Television)**

Those of claims 56-182 which are directed to the processing/distribution of digital television programming stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. FOA, §X, ¶28 (H&W 134). The test for enablement is whether one reasonably skilled in the art could make or use the invention from the disclosure in the application coupled with information known in the art without undue experimentation. *United States v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988). The invention is defined by the claims presented in the instant application. The PTO bears the initial burden of setting forth a reasonable explanation as to why it believes that the scope of protection provided by each claim is not adequately enabled by the description of the invention provided in the specification of the

application. *In re Wright*, 999 F.2d 1557 (Fed. Cir. 1993). The Examiner has failed to set forth a reasonable explanation as to why the scope of protection provided by any claim is not adequately enabled by the description of the invention provided in the specification of this application.

Claims 61 and 62 are cited as examples of claims which are directed to the processing/distribution of digital programming. Claims 61 and 63<sup>9</sup> are the only pending claim that use the term “digital.” In the prior Office action, claims 61 and 63 were addressed with regard to the issue of enablement of digital television. Claim 62 sets forth that an identifier is received from a remote video source or a remote data source. As claim 62 does not directly address the format of the television signal, but rather places a limitation an identifier, it appears that the rejection in meant to apply to claims 61 and 63.

As noted in the prior response, the discussion of the transmission and formatting of digital television signals is not directed to the scope of claims 61 and 63. Claim 61 is dependent from claim 60. Claim 60 sets forth an identifier. Claim 61 sets forth that the identifier identifies, inter alia, digital programming. The Examiner’s discussion directed to the term “digital television signals” fails to address an identifier that identifies digital programming. Thus, the Examiner has failed to establish a reasonable basis to question the enablement of an identifier that identifies digital programming. That notwithstanding, an identifier that identifies digital programming is enabled by the specification. For instance, on P. 449, lines 13-26, stock price data is digital programming (*see* 1987 Spec., P. 420-21) that includes transmitted identifiers of each stock price. Amended claim 63 recites a video apparatus communicating with a remote data source via a digital information channel. The Examiner’s discussion directed to the term “digital television signals” fails to address a digital information channel. Thus, the

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<sup>9</sup> applicants note that they have proposed amending claim 63 to delete the term “interactive” from the claim.

Examiner has failed to establish a reasonable basis to question the enablement of a digital information channel. Communication with a remote data source via a digital information channel is described in the 1987 specification at P. 420, lines 25-31. The specification describes a digital data channel on which information is communicated. Applicants respectfully submit that for the above reasons, one reasonably skilled in the art could make or use the invention defined in claims 61 and 63 from the disclosure in the instant application.

Applicants note that no claim in this application uses the term “digital television.” Accordingly, it is not clear to which claims other than claims 61 and 63 the Examiner refers as being directed to the processing/distribution of digital television programming. Claims 56-182 are fully enabled even if one assumes that the Examiner is correct that digital television is not enabled by the specification. Although the invention described is compatible with the use of digital television signals, the scope of the claims is not limited to digital television. The discussion of digital television in the Office action is irrelevant to the question of whether the claims in this application comply with the enablement requirement of 35 U.S.C. § 112, first paragraph. Applicants, however, maintain that techniques for the transmission of digital television were known in the art on and after November 3, 1981 (the priority date claimed for all pending claims except claims 62, 76, 101, and 127). The Examiner acknowledges “the fact that broadcasting digitally formatted television signals was in fact well known to those skilled in the art at the time of applicant’s alleged invention.” FOA, ¶28 (H&W 136). Applicants maintain that this knowledge is sufficient to enable one skilled in the art to make and use the invention defined by the claims in this application in the context of digital television signals.

In Section VI of the Office Action (¶16, H&W 68), the Examiner addresses applicants’ prior response to the rejection under the enablement requirement of 35 U.S.C. § 112, first paragraph. The Examiner states that “it appears to be applicant’s position that the Examiner has erred under section 112 by improperly assuming that applicant is

claiming ‘digital television’ when he recites ‘digital television’ in his pending amended claims.” This is a mischaracterization of applicants’ position. Applicants’ position is that the term “digital television” is not recited in any of the pending claims as they existed at the time of the FOA or as proposed to be amended in the instant Response. Finally, applicants reserve the right under proper circumstances (for example, if applicants were to use the term in their claims) to address the Examiner’s arguments directed to “digital television.”

For at least the above reasons, the disclosure in the instant application enables one reasonably skilled in the art to make and use the invention defined in claims 56-182, and specifically in claims 61 and 63. Accordingly, applicants respectfully submit that any rejection of under the enablement requirement of 35 U.S.C. § 112, first paragraph, of claims 56-182 be withdrawn.

**2. Rejections Under 35 U.S.C. §112, Second Paragraph**

**a. Blanket Rejections For Which Examiner Has Not Met His Burden of Proof (All Pending Claims Are Rejected Under § 112-2 For Indefiniteness)**

In Section VI, the Examiner, in the parenthetical/title following Section VI, states that “All of applicant’s Pending Amended claims Fall Under § 112-2 Too.” FOA, § VI (H&W 60). This statement appears to be a formal rejection of all of applicants’ pending claims, although the Examiner does not provide specific arguments directed to specific claims to support this blanket rejection. In the following section of the Response, applicants address the specific arguments that Examiner does raise in Section VI. Additionally, in Section IX, the Examiner asserts that all of the currently pending amended claims are indefinite for the reasons addressed in Section V of his FOA. In making this assertion, which does not appear to be a formal rejection of the pending claims under § 112-2, the Examiner fails to provide specific reasoning or examples to

support his assertion. In making the aforementioned assertions and statements that could arguably be considered formal rejections, the Examiner has not met his burden to demonstrate that *all* of the pending claims are indefinite under § 112-2.

**b. Specific Arguments Regarding § 112-2**

The Examiner raises several issues in support of his rejections under § 112-2. Almost all of these issues are the nearly identical arguments that were raised in support of the Examiner's rejections under § 112-1. In their response to the Examiner's § 112-2 rejections, applicants will address any new issues and arguments that have not already been addressed in this Response, and simply refer back to sections of this Response concerning § 112-1 for issues that have already been addressed.

The Examiner argues that applicants' pending claims reciting the term "programming" are indefinite because applicants employ different definitions of the term in the 1981 and 1987 disclosures. FOA, § VI ¶15 (H&W 60-61). Applicants note that the term "programming" is only used in proposed amended claims 57 and 58 (where the term is used as a verb), and claims 61, 67, (proposed amended claim) 70, 71 and 89 (where the term is used as a noun). Applicants submit (for the reasons explained in Section III.E.4.d of this Response) that the definitions and use of the term "programming" are consistent in the 1981 and 1987 disclosures. Accordingly, the Examiner's argument that claims incorporating this term are indefinite is without merit.

The Examiner also argues in Section VI that all claims including the term "digital or (digitized) television (or TV) program (or programming or signal or signals or content)" will be rejected under § 112-2 when the claimed terminology is used to refer to SPAM message packets because the term "digital/digitized" is used in a manner that is repugnant to its ordinary meaning. FOA, § VI ¶16 (H&W 64). The Examiner asserts that the term "digital TV signal" would not have been understood by those skilled in the art to mean insertion/ancillary signals like SPAM message packets whose purpose is to



enhance rather than carry content. FOA, § VI ¶16-18 (H&W 62-69). Applicants' maintain that *none* of the pending claims in this application recite "digital television" in any of the combinations identified by the Examiner in Section VI. Accordingly, the Examiner's argument and any rejections based on this argument is moot. If the Examiner makes arguments or rejections based on language or terminology that is actually recited in applicants' claims, applicants will respond accordingly.

The Examiner in Section VI discusses applicants' use of the terms "software module," "instruction module" and "data module" in a different, related application. The Examiner does not refer to any claims pending in the instant application with respect to these terms. FOA, § VI ¶19 (H&W 69-71). Applicants have continuously attempted to use these terms in a consistent and clear manner as required in the context of specific claims. The Examiner's assertion that the terms "software module," "instruction module" and "data module" must be synonymous is incorrect. The Examiner further requests applicants to indicate whether these terms have the same meaning. While it is true that the terms "software module" and "instruction module" may have the same scope in the pending claims, the fact that the term "data module" supports both terms does not make all three terms synonymous. A term that provides written description support for a recited term does necessarily mean that the supporting term is synonymous with the recited terms. Finally, applicants note that none of the terms "software module," "instruction module" or "data module" appears in any of the pending amended claims.

The Examiner also discusses applicants' use of the term "interactive video apparatus" in Section IX labeled "Rejections Under Section 112-2." FOA, § IX ¶25 (H&W 87-88). Applicants have proposed amending the pending claims to delete all occurrences of the term "interactive." Accordingly, the Examiner's arguments directed to the term "interactive" are moot. Notwithstanding the proposed amendments deleting "interactive," applicants maintain that the Examiner's § 112-2 arguments directed to use of the term "interactive" are without merit. The Examiner, however, fails to make a

specific rejection regarding the term “interactive video apparatus” and he never refers to a specific claim pending in this case. Applicants note, first, that the discussion regarding “interactive video apparatus” does not support a rejection under § 112-2, because applicants used the term in a consistent manner that particularly points out and distinctly claims subject matter that applicants’ regard as their invention. Applicants further note, for the reasons explained in Section III.C.1.a.4.(a) of this Response, that applicant do not use the term “interactive video apparatus” in a manner that is inconsistent or contradictory to the normal or conventional meaning of that term.

The Examiner further argues that applicants’ use of the term “downloadable” in claims 75, 152 and 167 is confusing and indefinite based on the support cited by applicants in the 1981 and 1987 disclosures. In the amendments proposed by applicants, all references of the term “downloadable” have been deleted, thus rendering the Examiner’s arguments on this issue moot. Notwithstanding the proposed deletion of the term “downloadable” from the claims, applicants submit, for the reasons explained in Section III.E.4.c of this Response concerning written description support for the term downloadable, that the term downloadable is used in a consistent manner that particularly points out and distinctly claims subject matter that applicants’ regard as their invention.

Finally, the Examiner asserts that the following claims are indefinite:

Claim 64, line 2, “said first data” does not have clear antecedent basis and is indefinite;

Claim 64 is confusing and indefinite because how can first and second data be processed to generate image when only one of first and second data is received;

Claim 65, lines 7-8 “said first discrete signal” does not have clear antecedent basis and is indefinite;

Claims 167-178 and 180-182 and P. 25-26 of the disclosure need clarification regarding “first” and “second” “completed full-screen graphics image” terminology.

FOA, § IX ¶24 (H&W 85).

As applicants have proposed to cancel claim 64, all of the Examiner's arguments concerning claim 64 are moot. Regarding the Examiner's arguments addressed to the lack of antecedent basis for "said first discrete signal" in claim 65, lines 7-8, applicants have proposed amending claim 65 to address the Examiner's concern.

Regarding the Examiner's rejection of claims 167-178 and 180-182, the completed full screen graphic image should be given its plain meaning. Accordingly, this terminology is clear in view of the specification for the reasons explained in Section III.C.1.a.4.(a) of this Response addressing the Examiner's comments on full screen graphic images discussed in Example 1.

Finally, in paragraph 20 of section VI of the FOA the Examiner discusses applicants' use of the term "receiver station." The term "receiver station" refers to a station that receives various types of transmitted information. While all receiver stations will receive transmitted information, other characteristics and functions of receiver stations may vary. The Examiner fails to interpret the term "receiver station" within the context of a specific claim or make any rejection based on his discussion of "receiver stations." applicants believe that their use of the term "receiver station" is definite in all of the pending amended claims. However, as the Examiner has not applied the arguments advanced in paragraph 20 to limit the scope of the term "receiver station" with respect to a specific claim, applicants reserve their right to address these arguments when they are raised in relation to a specific claim.

### **3. Conclusion**

Applicants respectfully submit that claims 56-182 of this subject application as pending at the time of the FOA and in their proposed amended form particularly point out and claim the subject matter sufficiently for one of ordinary skill in the art to comprehend the bounds of the claimed invention. The test for definiteness of a claim is whether one skilled in the art would understand the bounds of the patent claim when read in light of

the specification, and if the claims so read reasonably apprise those skilled in the art of the scope of the invention, no more is required. *Credle v. Bond*, 25 F.3d 1566, 30 USPQ2d 1911 (Fed. Cir. 1994). The legal standard for definiteness is whether a claim reasonably appraises those of skill in the art of its scope. *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994). Applicants have proposed various amendments to the claims to enhance their clarity and respectfully submit that all pending claims are fully enabled by the specification and distinctly indicate the metes and bounds of the claimed subject matter.

Applicants believe that the above recited proposed changes are sufficient to overcome the rejections under 35 U.S.C. § 112, first and second paragraph, and respectfully request withdrawal of these rejections. Applicants provide specific embodiments in support of the pending claims by way of example only. The claims must be read as broadly as is reasonable in light of the specification, and applicants in no way intend that their submission of excerpts/examples be construed to unnecessarily restrict the scope of the claimed subject matter.

**D. Applicants' Response with Respect to Claim of Priority Under 35 U.S.C. § 120**

As a preliminary matter, applicants note that pursuant to the proposed amendments, all claims pending in the instant Application, except claims 64, 76, 101, and 127, are entitled to a 1981 priority date. Applicants propose to amend claims 64, 76, 101, and 127 to claim subject matter that is supported solely by the 1987 specification as originally filed. Accordingly, applicants do not claim a 1981 priority date with respect to these claims.

The Examiner devotes much of the FOA to various unsupported theories as to why applicants are not entitled to a 1981 priority date based on applicants' 1981 priority application. Despite the Examiner's extensive commentary, observations and assertions

on the subject, the issue of whether an applicant is entitled to priority under §120 is straightforward.

The test applied by the Federal Circuit to determine whether an applicant may obtain the benefit of an earlier filing date from a related application under §120 is simple: an applicant is entitled to priority under § 120 for any claim if the disclosures in both applications each satisfy the requirements set forth in § 112 for that claim. *See, e.g., Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997) (“In order to gain the benefit of the filing date of an earlier application under 35 U.S.C. §120, each application in the chain leading back to the earlier application must comply with the written description requirements of 35 U.S.C. §112; Each application in the chain must describe the claimed features.”); *Studiengesellschaft Kohle v. Shell Oil Co.*, 112 F.3d 1561, 1564 (Fed. Cir. 1997) (“In other words, a claim complies with 35 U.S.C. §120 and acquires an earlier filing date if, and only if, it could have been added to an earlier application without introducing new matter.”); *Kennecott Corp. v. Kyocera Int'l, Inc.*, 835 F.2d 1419, 1421 (Fed. Cir. 1987) (“The incorporation of the [enablement and written description] requirements of section 112 into section 120 ensures that the inventor had possession of the later-claimed invention on the filing date of the earlier application.”).

Accordingly, the law requires a two part test in which the applicant separately demonstrates §112 support for each application. In the FOA, the Examiner distorts this straightforward test by imposing a third element of the test whereby the § 112 support from each application consists of “common subject matter.” The Examiner asserts that for applicant to obtain priority:

1) applicant must first identify exactly where the present 1987 disclosure described in an “immediately discernible” fashion that which is now being claimed in the given pending amended claim; and 2) [t]hen, applicant must identify “common subject matter” in the 1981 disclosure which provided this “same” section 112-1 support for the given claim.

FOA, ¶10-11 (H&W 49-50).

The Examiner goes on to emphasize that “claims must be directed to subject matter that is common to both of applicant’s [applications]” and that “[p]riority is not established via allegations of ‘correlated subject matter’ which is all that appears to have been presented and/or alleged in Appendices A and C of applicants’ June 7, 2000 Response . . .” *Id.* Later, the Examiner asserts that “applicant must be able to show that the disclosed/claimed subject matter of the present 1987 application represents the same subject matter (i.e., “common” subject matter) which is disclosed/described earlier in his previously filed 1981 parent application.” *Id.* at ¶11 (H&W 51). The Examiner identifies no authority to support his position that the relied upon disclosures must represent the same or common subject matter.<sup>10</sup>

In the present application, because the relevant part of each application must sufficiently support an identical claim or claim limitation, the two bases of support will be similar (and consist of “common subject matter”) as a result. The portions of the two specifications relied upon by applicants to support any given pending claim demonstrate this similarity and the fact that the relied upon support does consist of “common” subject matter. For example, as evidenced from the discussion of support for the pending claims in Section II above, written description support for many pending claims is found in the same embodiment — the WSW example. The general aspects of the WSW example/embodiment are found in both specifications, although the 1987 specification describes the basic example with many enhancements and improvements. Accordingly,

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<sup>10</sup> In the FOA the Examiner relies on *Transco Products Inc. v. Performance Contracting, Inc.*, 38 F.3d 551 (Fed. Cir 1994). In *Transco*, the court observed that “an application is entitled to the benefit of the filing date of an earlier application as to common subject matter.” *Id.* at 557. In support of this statement, the court cited four cases from the Court of Custom and Patent Appeals and one decision from the Commissioner of Patents. All five of these authorities recite the same test for compliance under § 120: to obtain the benefit of an earlier filing date, both applications must satisfy the requirements of § 112. None of the authorities suggest that the support relied upon by applicant to satisfy § 112 be “common” or “similar.” *Transco* simply uses the term “common subject matter” to describe subject matter which is sufficiently supported under § 112 by both applications.

applicants maintain that support for the pending claims exists in the same embodiment.<sup>11</sup> Such support constitutes “common subject matter, even though the “common subject matter” requirement, as applied and imposed by the Examiner, contradicts the case law describing what is required to obtain priority under § 120.

The Examiner’s assertion that textual “continuity” in applicants’ language must be preserved with respect to the written description, enablement and best mode requirements of § 112 further distorts the standards for priority under § 120. There is no separate requirement that textual “continuity” between two disclosures be met to establish priority. Rather, the “continuity” described in the case law is established when both disclosures separately satisfy the requirements of § 112 with respect to the later filed claims. Once § 112 support has been shown in both disclosures, there is no additional requirement to demonstrate that the “claims are directed to ‘common subject matter’ for which ‘continuity’ has been maintained.” FOA, ¶16 (H&W 14). Recognizing there to be no obligation to update the best mode in a continuation application “to maintains [sic] continuity between applications,” the Examiner asserts that applicants were required to at least carry forward the “old best mode” from of [sic] his earlier filed application into his originally filed present disclosure. . . [a]pplicant failed to do this and therefor [sic] has not maintained ‘continuity of disclosure.’” *Id.* at n.27. The Examiner’s assertion is incorrect and unsupported by the law.

Nothing in the case law suggests that the two disclosure be compared to determine if they disclose the invention in a similar manner. In fact, contrary to the position asserted by the Examiner, the case law clearly acknowledges that claims can be supported by disclosures in the earlier and later filed applications in *different* ways:

[T]he earlier and later applications need not use identical words, if the earlier application shows the subject matter that is claimed in the later

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<sup>11</sup> applicants note that the law does not require that written description support be identified in the same embodiment in order to comply with § 120. See *Kennecott*, 835 F.2d at 1422.

application, with adequate direction as to how to obtain it. . . . [A]n invention may be described in many different ways and still be the same invention. . . . In *In re Kirchner*, 305 F.2d 897, 904 134 USPQ 324, 330 (C.C.P.A. 1962) the court held that compliance with section 120 does not require that the invention be described in the same way, in both applications. *Id.* In *Kirchner* the court authorized the addition to the specification of descriptive matter concerning the use of compounds without the loss of the parent's application's filing date.

*Kennecott*, 835 F.2d at 1422.

None of the cases addressing satisfaction of § 120 test suggest that the two disclosures identified to support a claim must be or need be compared for similarity in any manner. Instead, what is simply required is that the claim (or claim limitation) be separately satisfied under § 112-1 by both disclosures. The written description test applied to the earlier application does not differ from the test applied to the later application.

In *Edwards*, 568 F.2d 1349 (C.C.P.A. 1978), the court considered a chemical compound that was not described in the earlier application, and stated that the earlier and later applications need not use the identical words, if the earlier application shows the subject matter that is claimed in the later application, with adequate direction as to how to obtain it. Invoking the inherency argument, the court observed that the chemical reactions described in the earlier filing “will inherently produce, as the predominant compound, the [later] claimed compound.” *Edwards*, 568 F.2d at 1352.

An applicant is entitled to priority for a claim that recites a feature that was inherently described in an earlier application and explicitly described in a later filed application. See *Therma-Tru Corp. v. Peachtree Doors Inc.*, 44 F.3d 988, 993 (Fed. Cir. 1995) (“the later explicit description of an inherent property does not deprive the product of the benefit of the filing date of the earlier application”); *Litton Systems, Inc. v. Whirlpool Corp.*, 728 F.2d 1423, 1438 (Fed. Cir. 1984) (“If matter added through amendment to a C-I-P application is deemed inherent in whatever the original parent application discloses, however, that matter also is entitled to the filing date of the



original, parent application.”), *overruled in part on other grounds by Two Pesos Inc. v. Taco Cabana*, 505 U.S. 763 (1992). Accordingly, claims in a continuation application that are supported by a detailed disclosure in a later-filed application may be entitled to the priority date of a parent application that did not explicitly disclose those details as long as those details are inherent to the parent application.

The case law interpreting § 120 does not require an applicant to demonstrate that the disclosures relied upon under § 112-1 have anything in common besides their ability to separately comply with § 112-1 with respect to the claims for which priority is sought. Accordingly, the Examiner’s focus on comparing the support from the two applications for similarity or common subject matter is improper and irrelevant because all applicants are required to do to satisfy § 120 is show that each disclosure meets the requirements of § 112-1 for a given claim.

#### **E. Response to Examiner’s Denial of Priority to 1981**

As stated, the Examiner raises numerous issues to support his conclusion that none of applicants’ pending claims are entitled to a 1981 priority date under § 120. Even though in Section III.D above, applicants have already shown that the Examiner applies an improper test to the priority issue, applicants directly respond to the general and specific issues raised by the Examiner related to priority.

##### **1. Applicants’ Allegedly Improper Reliance on Written Description Support in the 1981 Application**

Applicants have agreed that the 1981 application is not incorporated by reference into the 1987 application. Accordingly, applicants must demonstrate written description support in the 1987 application to satisfy the written description requirement. Indeed, this is exactly what applicants provided in the Support Charts. The FOA contains numerous charges that applicants improperly have previously directed the Examiner to

written description support in the 1981 specification rather than the 1987 specification. These charges are groundless, but even if true, irrelevant. As applicant have always maintained that all of the pending claims, except for proposed amended claims 64, 76, 101 and 127, are entitled to the 1981 priority date, applicants have simply addressed written description support for both cases concurrently, rather than first showing support in the 1987 case, then showing support in the 1981 case as the Examiner now demands. Unfortunately, the Examiner misconstrued applicants' attempt at easing his burden as an improper, misleading submission.

**2. The Alleged Effects of applicants' Decision Not to Incorporate by Reference the 1981 Application into the 1987 Application As Originally Filed**

The FOA is replete with the Examiner's observations that the 1981 application was not incorporated into the 1987 application as originally filed and that this has a fatal effect on applicants' ability to establish a 1981 priority date. The Examiner's position on this point has absolutely no support under the controlling authorities. There is no bright line test whereby an applicant loses his right to claim priority to an earlier application if the earlier application is not incorporated verbatim into the later application. As the case law makes clear, applicants' decision not to incorporate the 1981 specification *in hac verba* is of no consequence.<sup>12</sup> Accordingly, the Examiner's discussion of whether part of, or all of, the 1981 application made its way into the 1987 application is completely irrelevant to the priority issue. For the same reasons discussed in Section III.D of this Response (regarding the improper requirement of "common subject matter"), applicants are entitled to priority with respect to each claim for which the requirements of § 112 were met in both disclosures.

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<sup>12</sup> The only legitimate problem that could potentially arise from applicant's decision on this issue is if support for a pending claim does not exist in the 1987 application, but only in the 1981 specification. This is the only scenario in which applicants' decision not to explicitly incorporate the 1981 application into the 1987 application would have any effect whatsoever. But this is not the case for any pending claim.

### 3. Best Mode

The FOA apparently relies on the following quote from *Transco* to support the argument that no claim in this Application is entitled to priority:

It must be understood that the introduction of a new best mode disclosure would constitute the injection of “new matter” into the application and automatically deprive the applicant of the benefit of the earlier filing date of the parent or original application for any claim whose validity rests on the new best mode disclosure.

*Transco*, 38 F.3d 551, 558 (FOA, ¶15 (H&W 13)).

Even assuming that applicants have updated the best mode in the 1987 disclosure, applicants would lose the 1981 priority date only for claims whose validity rests on the new best mode disclosure. Applicants maintain that none of the pending claims, except claims 64, 76, 101 and 127, contain limitations or elements that are supported only by the 1987 disclosure. In other words, all of the pending claims (except claims 64, 76, 101 and 127) are separately and equally supported by both disclosures. Accordingly, it makes no difference if applicants have updated the best mode in the 1987 case, and it is of no consequence that the 1981 specification is not explicitly incorporated by reference in the originally filed 1987 application.

### 4. Specific Issues

#### a. The Technology Disclosed in the 1981 and 1987 Disclosures Is Sufficiently Similar to Support All of the Currently Pending Claims

Throughout the FOA the Examiner argues that applicants cannot demonstrate written description support for the pending claims because the disclosures in the 1981 case and the 1987 case are based on “vastly different technology.” FOA, ¶13 (H&W 12). The Examiner asserts that:

[A]ll limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure; namely, the more “sophisticated” systems/methods of the present 1987 disclosure. These

1987 “sophisticated” systems/methods clearly constitute different subject matter” from the “primitive” systems/methods whose descriptions were left behind in the 1981 parent disclosure. Accordingly the “subject matter” of the 1981 parent does not constitute “common subject matter” with respect to the “subject matter” now being claimed and, therefor, the currently pending amending claims are not entitled to the priority of the 1981 filing date . . . .

FOA, ¶9 (H&W 47).

This argument is flawed for several reasons. First, as shown below, the technology/systems/methods that are described in the 1981 case are, in fact, very similar to the technology/systems/methods that are described in the 1987 case. Second, as already explained, there is no additional requirement that the subject matter of the 1981 case constitute common subject matter with respect to the subject matter claimed in the 1987 case. The Examiner’s focus on a comparison of similarities between the systems and technology described in the two disclosures is not relevant to whether applicants have complied with the written description requirement of § 112-1 in both applications. Third, the assumption that “all limitations of the currently pending claims are necessarily directed to that which is described [only] in the present 1987 disclosure” is mistaken and wholly unsupported. Finally, and to repeat, applicants are entitled to priority because all of the pending claims, except proposed amended claims 64, 76, 101 and 127, are supported separately in both disclosures.

The Examiner misses the mark in his conclusion that the disclosures describe different technology and that all of the pending claims are “necessarily” directed to only to the “sophisticated” technology of the 1987 disclosure. Instead of disclosing different technology/systems/methods (hereinafter “systems”), the 1987 disclosure merely provides additional enhancements and improvements to the same systems that are described in the 1981 application. Both disclosures describe systems in which “instruction signals” are transmitted from a origination/receiving station to a signal processor at a remote user’s receiver station. The 1987 disclosure provides

enhancements and improvements regarding the nature and types of instruction signals that are disclosed in the 1981 application.

Applicants could, if they chose, claim in the 1987 case narrow limitations directed to the specific enhancements and improvements that are described in the 1987 case. These would not be entitled to the 1981 priority date. Indeed, applicants have done exactly that with respect to amended claims 64, 76, 101 and 127. However, other than these exceptions, applicants have generally written claims that are supported by the systems described in both disclosures.

Applicants may seek and are entitled to obtain claims and coverage that may be broader than a specific embodiment disclosed as long as one skilled in the art would understand that the inventor had possession of the subject matter claimed at the time the original disclosure was made. *See Utter v. Hiraga*, 845 F.2d 993, 998 (Fed. Cir 1988) (“A specification may, within the meaning of 35 U.S.C. § 112, first paragraph, contain a written description of a broadly claimed invention without describing all species that claim encompasses”);<sup>13</sup> *In re Rasmussen*, 650 F.2d 1212 (C.C.P.A. 1981).

Except for proposed amended claims 64, 76, 101 and 127, the pending claims are directed or limited to those aspects of the systems that are commonly described in both disclosures. The Examiner erroneously assumes that just because there is support in the 1987 disclosure, similar support in the 1981 disclosure can not exist. Applicants’ Support Charts and the discussion of specification support provided in Section II above, demonstrate that both specifications support the pending claims (other than claims 64, 76, 101 and 127, which are supported by the 1987 specification only).

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<sup>13</sup> Although *Utter v. Hiraga* was decided under the old interference rules which are no longer in effect, the above quoted proposition from *Utter v. Hiraga* is still cited with approval by the Federal Circuit. *See Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1568 (Fed. Cir. 1997).

**b. The 1981 Disclosure of “Instructions” and “Commands” Supports the Recitation of “Downloading of Computer Software/Programming”**

The Examiner asserts that cuing codes, referred to in the 1981 disclosure as “instructions” or “commands,” do not support the downloading of computer software/programming because the 1981 disclosure describes a processor that was preprogrammed and because not every series of instructions or commands constitute computer software/programming.

The terms “downloading of computer software” or “downloading of programming” do not appear anywhere in the pending claims. Applicants propose to cancel claims 75 and 152, both of which recited “downloadable processor instructions.” Additionally, applicants note that the term “downloadable” has been deleted from the proposed amended claim 167. Accordingly, the proposed cancellation of these claims renders the Examiner’s arguments directed to “downloadable processor instructions” moot.

Notwithstanding the proposed cancellation of claims 75 and 152 and the proposed amendment of claim 167, applicants maintain that “downloadable processor instructions,” “downloading of software” and “downloadable” are fully supported in the 1981 and 1987 specifications. The support that applicants have provided for the “downloadable processor instructions” recitation is essentially the same for the 1981 and 1987 disclosure: “Microcomputer, 205, is preprogrammed to respond in a predetermined fashion to instruction signals embedded in the ‘Wall Street Week’ program transmission” (Col. 19, lines 42-44, in the 1981 disclosure) and “Microcomputer, 205, is preprogrammed to receive said input of signals at its asynchronous communications adapter and respond in a predetermined fashion to instruction signals embedded in the ‘Wall Street Week’ program transmission” (p. 21, lines 20-24, in the 1987 disclosure).

The 1981 disclosure, in which instructions or commands are transmitted to a preprogrammed microcomputer, supports the recitation of “downloadable processor instructions.” Further, applicants maintain that the instructions or commands described in the 1981 disclosure would have been understood by one skilled in the art to be a series or collection of data organized to perform a function that could be transmitted and which was capable of being downloaded at some remote location to cause a processor to perform a function.

Additionally, the support identified in the Support Charts for “downloadable code” and the support for the amended claim recitation of “code” identified in Sections II.H and II.I above, both support “code” that can be transmitted to some remote location and that is capable of being downloaded to a remote location.

**c. Consistent Interpretations Are Applied to  
Claim Limitations to Find Support in  
1981 and 1987 Disclosures**

The Examiner asserts, again with few concrete examples, that applicants have used and assigned different interpretations or definitions to identical terms in a given claim in order to demonstrate written description support in the 1987 and 1981 disclosures. FOA, ¶14 (H&W 12). Applicants acknowledge that claims, claim limitations, and claim terms cannot be defined or interpreted differently or inconsistently when an applicant demonstrates written description support in two different disclosures. However, applicants have not assigned or used different or conflicting interpretations of claim terms or limitation to show § 112 support.

To exemplify that different definitions have been assigned to claim limitations, the Examiner argues that claim recitations are “contorted in an attempt to craft them to read independently on different teachings from the two disclosures.” It appears that Examiner’s real problem is that applicants have recited claims (and claim limitations) that are of precisely the right breath to be supported by both the 1981 disclosure and the 1987

disclosure. This practice is entirely permissible. *See Utter v. Hiraga*, 845 F.2d 993, 998. The fact that a claimed invention or limitation may be described in different ways does not preclude the invention or limitation from being properly supported under § 112-1. *See Kennecott*, 835 F.2d at 1422 (“[A]n invention may be described in many different ways and still be the same invention.”). Different descriptions in a disclosure are sufficient to support a claim limitation without being found to interpret or define the claim limitation in different or inconsistent ways.

The Examiner’s discussion in footnote 26 is illustrative. The Examiner asserts that the recited term “downloadable processor instruction” is “contorted” in order to “read independently on different teachings from the two disclosures.” As discussed, the terms “downloadable processor instructions” and “downloadable code” no longer appear in any of the pending, amended claims (although the unmodified term “code” does still exist in claims 162, 164, and 167). FOA, ¶14 (H&W 12-13). As a threshold matter, applicants note that they rely primarily on the nearly identical support from the 1981 and 1987 disclosures to support “downloadable processor instruction.” *See* 1981 Spec., Col. 19, ll. 42-44; 1987 Spec., P. 21, ll. 20-24. The Examiner criticizes applicants for relying on this support (which allegedly requires “contorting” the definition/interpretation of “downloadable processor instruction”) because “different,” allegedly clear support appears in the 1987 specification. This “different” support, namely the “program instruction set” described in the 1987 disclosure, is not a different variety of support, it is merely another example of data capable of being downloaded that is transmitted to instruct a processor. An applicant is entitled to claims that may be broader than a single embodiment if the prior art permits. *See Gentry Gallery, Inc. v. Berkline Corp.*, 134 F.3d 1473, 1479 (Fed. Cir. 1998) (“an applicant . . . is generally allowed claims, when the art permits, which cover more than the specific embodiment shown”). In the instant case, applicants have simply drafted claims that cover the specific embodiment to which the Examiner points, and which are fully supported by the description of the instruction



signals which are sent to a microcomputer. There is nothing inconsistent in the way the claim limitation is being interpreted in order to demonstrate compliance with § 112-1 using the support relied upon by applicants, *or* using the support suggested by the Examiner.

**d. Applicants Use One Consistent Definition of “Programming”**

The Examiner concludes that applicants used two different definitions of programming in the 1987 and 1981 applications, and that these allegedly different definitions raise problems under §§ 112-1 and 112-2. *See* FOA, §I, §II ¶9, §V ¶13, §VI ¶15 (H&W 4, 9, 54-55, 60-61). The Examiner asserts that applicants’ 1981 definition of programming is limited to “scheduled radio and television shows,” while applicants’ 1987 definition explicitly defined that term to generically encompass other types of programming from environments outside the radio and television arts. As a preliminary matter applicants note that the term “programming” is only used in proposed amended claims 57 and 58 (where the term is used as a verb), and claims 61, 67, (proposed amended claim) 70, 71 and 89 (where the term is used as a noun).

“Programming” was a defined term in both applications. The 1981 application defined programming as “everything that is transmitted over television or radio intended for communication of entertainment or to instruct or inform.” U.S. Pat. No. 4,694,490, Abstract, lines 4-7. The 1987 application defined programming as “everything that is transmitted electronically to entertain, instruct or inform including television, radio broadcast print, and computer programming as well as combined medium programming.” 1987 Spec., P. 11, ll. 6-10. The language of the two disclosures is not inconsistent. Any inconsistency that can be found arises only because of the Examiner’s overly narrow interpretation of the 1981 application.

The 1981 application does not limit the definition of “programming” to “scheduled radio and television shows.” The definition is expansive, including at least

“everything” transmitted by radio or TV that is intended for communication of entertainment or to instruct or inform. The Examiner’s interpretation of the term, which limits the term to content or shows that are seen or heard by the viewer or listener, is not supported by the definition or the discussion of programming elsewhere in the definition. While the term programming clearly is meant to include the television and radio “shows,” the definition is sufficiently broad to encompass additional transmitted information that is a key element of applicants’ invention disclosed in the 1981 application. For example, the term “programming” is used in the 1981 specification to refer to the transmission of shows or content seen by the viewer and embedded data instructions, codes or signals.

The 1981 specification states:

It is the object of this invention to unlock this potential by the development of means and methods which permit programming to communicate with equipment that is external to television and radio receivers, particularly computers and computers peripherals such as printers.

1981 Spec., Col. 1, ll. 36-41.

Thus applicants’ 1981 specification makes clear that “programming” is not just TV and radio shows — it can also include instructions, codes and signals that are communicated to and control e.g., computers and computer peripherals. These instructions, codes and signals clearly fall within the explicit definition of programming and to find otherwise is to conveniently and purposefully overlook the entire purpose of the invention.

The definition of programming in the 1987 definition does not depart from this definition. The 1987 definition merely lists additional specific examples of things transmitted to entertain, instruct or inform. The 1987 definition includes “television, radio, broadcast print, and computer programming as well as combined medium programming” as examples of programming. 1987 Spec., P. 11, ll. 6-10. Contrary to the Examiner’s position, the “computer programming” expressly included in the 1987

definition and the “instruction and information signals” implicitly included in the 1981 definition do constitute common subject matter. The instruction and information signals are a series of data instructions transmitted to cause a computer to perform certain functions. Similarly, computer programming is a series of data instructions that can be transmitted to cause a computer to perform certain functions. Again, to find otherwise is to craft opposition to the application, not to give it fair reading.

The Examiner’s attempts to characterize the 1981 and 1987 definitions of “programming” as different are unconvincing. Accordingly, the use of the term “programming” in the pending claims finds consistent and sufficient support in both the 1981 and 1987 applications.

#### **F. Response to Obviousness Rejection of Claims**

As a initial matter, applicants note that the Examiner has been unable to uncover a single anticipatory reference for any claim. The Examiner does, however, make numerous rejections of applicants’ claims based on § 103.

To establish a *prima facie* case of obviousness under § 103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference to combine the teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references combined) must teach or suggest all of the claim recitations. MPEP 706.02(j). Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not based on applicants’ disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

In order to support a § 103 rejection based on the modification of a single reference, the Examiner must provide specific evidence to show why one of ordinary skill would be motivated to modify the reference in such a way to incorporate all of the

claimed elements. *See In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-1317 (Fed. Cir. 2000) (“[e]ven when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference.”) (emphasis added). Broad conclusory statements concerning motivation to modify, standing alone, are not sufficient to support an obviousness rejection. *See In re Freed*, 425 F.2d 785, 787, 165 USPQ 570, 571-72 (C.C.P.A. 1970) (an obviousness rejection must be based on facts, “cold hard facts”); *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (“[b]road, conclusory statements standing alone are not ‘evidence’”). Accordingly, a statement that a modification would be an “obvious design choice,” without factual support, is insufficient as a matter of law. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). Finally, as the absence of a suggestion to modify a reference is dispositive in an obviousness determination, a rejection which fails to provide specific evidence as to why one of ordinary skill would be motivated to modify the relevant reference is insupportable, as a matter of law. *See Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 42 USPQ2d 1378 (Fed. Cir. 1997).

In order to support a § 103 rejection based on a combination of references, the Examiner must provide a sufficient motivation for making the relevant combinations. *See* MPEP §§ 2142 and 2143.01; *see also In re Rouffet*, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references”). It is well-settled that an examiner can “satisfy [the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness] only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the reference.” *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). As with rejections based on the modification of a single reference, “broad conclusory

statements regarding the teaching of multiple references, standing alone, are not evidence [of a motivation to combine]” and thus do not support rejections based on combining references. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999), *abrogated on other grounds by In re Gartside*, 203 F.3d 1305, 53 USPQ2d 1769 (Fed. Cir. 2000). Without objective evidence of a motivation to combine, the obviousness rejection is the “essence of hindsight” reconstruction, the very “syndrome” that the requirement for such evidence is designed to combat, and without which the obvious rejection is insufficient as a matter of law. *Id.* at 1617-1618.

**1. 35 U.S.C. § 103 (a) Rejection Based on Gargini et al. U.K. Pat. No. 2,164,229**

Paragraphs 29-32 of the FOA reject claims 56-92 under 35 U.S.C. § 103(a) as being unpatentable based on Gargini et al.

**a. Independent Claim 56 and Dependent Claims Thereto.**

Gargini is a British patent application published March 12, 1986. Claim 56, and claims 57-63, 65-74 and 89-91 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants’ patent application no. 317,510 for the reasons discussed above in section III.D. Accordingly, Gargini is not available as prior art against claim 56 and the claims 57-63, 65-74 and 89-91 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Gargini as prior art is maintained, applicants distinguish the invention claimed in claim 56 and the claims dependent therefrom including claims 64 and 76 from the teachings of Gargini below.

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied”

data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of processing the remotely originated data and the locally supplied data in order to generate the locally generated image.

Gargini describes a cable television distribution system with two-way communication capability. A subscriber unit transmitter when applying data signals to the cable system for upstream communication is responsive to timing signals transmitted downstream from an exchange. Gargini at 2 ll. 11-21. The exchange identifies the source of the data signals received from the subscriber units by reference to the timing signals. Gargini at 2 ll. 22-28. Gargini describes that within this two-way communications system, a teletext receiver may be provided at a subscriber unit and a means for supplying teletext signals on a television channel may also be provided. Gargini at 2 ll. 49-66. In an embodiment of this arrangement, a first television channel is dedicated to full field teletext signals and a second channel is dedicated to interactive services. Gargini at 2 ll. 67-69. If the subscriber unit transmits data over the system in response to information on the second channel, a system response is transmitted on a sub-page of teletext dedicated to that subscriber unit. Gargini at 2 ll. 70-74. The subscriber unit momentarily connects the teletext receiver to the first channel such that the data transmitted on the dedicated sub-page is acquired and inlaid on the picture received from the second channel. Gargini at 2 ll. 75-80.

With respect to claim 56 as proposed, Gargini fails to show or suggest processing remotely originated and locally supplied data in order to present a locally generated image. The Examiner notes that the teletext in the sub-page received by a subscriber unit is data that serves as a basis for the ultimately produced combined image presentation. FOA § XII ¶ 30, H&W 161. The proposed amendment to claim 56 sets forth processing remotely originated and locally supplied data. The subscriber unit of Gargini receives

and displays teletext. There is no suggestion that remotely originated and locally supplied data are processed. To the contrary, the display of Gargini is entirely based on processing the teletext signal. No other data is processed. Accordingly, Gargini fails to teach processing remotely originated data and locally supplied data as required by proposed claim 56.

Applicants respectfully request that the rejection of claim 56 under 35 U.S.C. §103(a) be withdrawn for at least the reasons set forth above.

Claims 57-74 and 89-91, dependent upon independent claim 56, stand rejected under 35 U.S.C. 103(a) as being unpatentable based on Gargini for the same reasons that were set forth for claim 56. FOA ¶ 30, H&W 161. Applicants respectfully request that this rejection be withdrawn for the reasons set forth above with respect to claim 56. As discussed *supra*, Gargini fails to show or suggest every element of claim 56 and thus, *ipso facto*, Gargini fails to render obvious dependent claims 57-74 and 89-91. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request the withdrawal of this rejection of claims 57-74 and 89-91 for at least the above reasons.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Gargini et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth that a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Gargini et al. fails to suggest storing

remotely originated data and locally supplied data in any file. Accordingly, Gargini et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Gargini et al.

**b. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80, and claims 81-82 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D. Gargini is not available as prior art against claim 80 and the claims dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Gargini as prior art is maintained, applicants distinguish the invention claimed in claim 80 and the claims dependent therefrom from the teachings of Gargini below.

Claim 80 is a transmitter claim for an "origination transmitter station" (OTS) that transmits control signals and instruct signals to control operations at a downstream "intermediate transmitter station" (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

Specifically, claim 80 as proposed includes the step of transmitting a signal from an origination transmitter. The signal contains video and an instruct signal which is operative at the receiver station to instruct the receiver station to generate or output a locally generated portion of a video presentation and cause the locally generated portion



of the video presentation to be displayed in conjunction with the video. Claim 80 further includes the step of transmitting a control signal from the origination transmitter, wherein the control signal is effective at the remote intermediate transmitter station to control the communication of the video or the instruct signal.

As discussed more fully above with respect to claim 56, Gargini describes a cable television distribution system with two-way communication capability. In one embodiment, a television channel is dedicated to full field teletext signals and a second channel is dedicated to providing interactive services. If the subscriber unit transmits data over the system in response to information on the second channel, a system response is transmitted on a sub-page of teletext dedicated to that subscriber unit. The subscriber unit momentarily connects the teletext receiver to the first channel such that the data transmitted on the dedicated sub-page is acquired and inlaid on the picture received from the second channel. Gargini describes a headend linked by a trunk to exchanges which in turn supply signals to a group of subscriber units. Gargini at 3, ll. 12-22.

Gargini fails to show or suggest each step recited in proposed claim 80. Claim 80 as proposed includes the step of transmitting a signal containing video from an origination transmitter. The signal also contains an instruct signal which is operative to cause a locally generated portion of a video presentation to be displayed in conjunction with the video. Gargini fails to show or suggest such an **instruct signal**. This rejection of claim 80 does not explicitly state what disclosure of Gargini is relied upon to show this instruct signal. However, teletext data is generally relied upon by the Examiner to show instruct and control signals. Gargini describes a television channel that is allocated to teletext, in which teletext signals are broadcast on almost every line of the television field. Gargini at 8, ll. 40-43. Gargini fails to show or suggest a signal containing video and also containing an instruct signal. Specifically, there is no suggestion of an instruct signal in a signal containing video that causes a locally generated portion of a video presentation to be displayed in conjunction with the video.

Claim 80 further includes the step of transmitting a **control signal** which is effective to control communication of the video or the instruct signal at a remote intermediate transmitter station. Gargini suggests no such control signal. The FOA includes no explanation of where this control signal is found in the invention described in Gargini. As Gargini fails to suggest the control signal as defined in claim 80, Gargini cannot suggest the claimed step of transmitting such a control signal.

Applicants respectfully request that the rejection of claim 80 as being unpatentable under 35 U.S.C. §103(a) based on Gargini be withdrawn for at least the above reasons.

Claims 81 and 82 depend upon independent claim 80. As discussed *supra*, Gargini fails to show or suggest every element of claim 80 and thus, *ipso facto*, Gargini fails to render obvious dependent claims 81 and 82. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). For at least this reason, applicants respectfully request that this rejection of claims 81 and 82 be withdrawn.

Applicants propose to cancel claims 83 and 92. The cancellation of these claims will serve to render this rejection moot with respect to these claims.

**c. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84, and claims 85-87 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D. Gargini is not available as prior art against claim 84 and the claims dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Gargini as prior art is maintained, applicants distinguish the invention claimed in claim 84 and the claims dependent therefrom from the teachings of Gargini below.

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

In particular, claim 84 includes receiving a first discrete signal. This first discrete signal enables the receiver station to organize information in the first discrete signal with information in a second discrete signal to provide a processor instruction. The processor instruction causes the receiver station to deliver a locally generated image for display in conjunction with video. The locally generated image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

As discussed more fully above with respect to claim 56, Gargini describes a cable television distribution system with two-way communication capability. In one embodiment, a television channel is dedicated to full field teletext signals and a second channel is dedicated to providing interactive services. If the subscriber unit transmits data over the system in response to information on the second channel, a system response is transmitted on a sub-page of teletext dedicated to that subscriber unit. The subscriber unit momentarily connects the teletext receiver to the first channel such that the data transmitted on the dedicated sub-page is acquired and inlaid on the picture received from the second channel. Gargini describes a headend linked by a trunk to exchanges which in turn supply signals to a group of subscriber units. Gargini at 3, ll. 12-22.

Gargini fails to suggest each step of the method defined in claim 84. Gargini fails to show or suggest, and the Examiner fails to address, a first discrete signal as set forth in claim 84. Gargini merely describes applications for teletext signals. There is no suggestion that these teletext signals are discrete signals that are organized to form processor instructions. Nor is there any suggestion that these teletext signals are organized from discrete signals, (moreover, the ordinary artisan would have readily comprehended that teletext signals do not constitute processor instructions. They are merely character codes). Gargini includes no other description of a discrete signal. Accordingly, Gargini fails to show or suggest a first discrete signal as set forth by claim 84. Gargini does not, therefore, show or suggest receiving such a first discrete signal as claimed in claim 84.

Gargini also includes no suggestion of a processor instruction that instructs a receiver station to deliver a locally generated image for display as set forth in claim 84. The proposed amendment to claim 84 sets forth that the locally generated image is based on user specific data stored at the receiver station prior to organizing the processor instruction. The Examiner notes that the teletext delivered on a subscriber's dedicated sub-page is personal. FOA § XII ¶ 29, H&W 160. However even if true, the display of this personal teletext is not based on **user specific data stored at the receiver station prior to organizing the teletext data**. There is no user specific data stored at the receiver station of Gargini prior to processing the teletext data. Gargini thus fails to suggest a locally generated image as set forth in proposed claim 84.

Applicants respectfully request that the rejection of claim 84 as being unpatentable under 35 U.S.C. § 103(a) based on Gargini be withdrawn for at least the above reasons.

Claims 85-87 depend from independent claim 84. As discussed *supra*, Gargini fails to disclose every element of claim 84 and thus, *ipso facto*, Gargini fails to teach or suggest dependent claims 85-87. If an independent claim is nonobvious under 35 U.S.C.

§ 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). For at least this reason, applicants respectfully request that this rejection of claims 85-87 be withdrawn.

Applicants proposed to cancel claim 88. The cancellation of claim 88 will render this rejection of claim 88 moot.

**2. 35 U.S.C. § 103 (a) Rejection Based on Baker,  
EPO No. 152,251 in View of Gargini et al.**

Paragraphs 33-39 of the FOA reject claims 56-79, 84-91, 93-122 & 142-156 under 35 U.S.C. § 103(a) as being unpatentable based on Baker in view of Gargini.

**a. Independent Claim 56 and Dependent  
Claims Thereto.**

Baker is a European patent application published August 21, 1985. Claim 56, and claims 57-63, 65-74 and 89-91 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section III.D. Accordingly, Baker is not available as prior art against claim 56 and the dependent claims 57-63, 65-74 and 89-91. Likewise, Gargini, as discussed above, is not available as prior art against these claims. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Baker and Gargini as prior art is maintained, applicants distinguish the invention claimed in claim 56 and the claims dependent therefrom from the teachings of Baker and Gargini below.

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on "remotely originated" data received from a remote data source and "locally supplied" data. The "remotely originated" data is received in response to a request sent from the

user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of processing remotely originated and locally supplied data in order to generate the locally generated image.

Baker describes a multi-channel broadcasting system where encrypted data are transmitted between a central terminal and subscriber terminals. Baker at 3. When a subscriber selects a secure channel, the subscriber terminal is temporarily connected to a separate channel for receiving encryption algorithm information (e.g., an algorithm and key). Baker at 4. The encryption algorithm information is stored and used to decrypt and encrypt data received and sent on the selected secure channel. Baker at 5. Baker mentions that the encryption algorithm information (algorithm and key) may be downloaded into a computer. Baker at 7. Baker describes an example that includes transmitting data upstream representing a request for bank account information. Baker at 5. Downstream data from the headend includes a “picture signal appropriate to the bank” onto which the requested account data is superimposed. Baker at 5-6. Baker contemplates data transmitted in encrypted teletext form for reception by a teletext receiver.

It is noted in the FOA that Baker is in the same family as, and is explicitly based on, Gargini. It is stated in the FOA that Gargini is incorporated in the present rejection in order to establish the context in which Baker is described. FOA § XII ¶ 33, H&W 163. Gargini is fully addressed above and provides no teaching that corrects any deficiency of Baker as discussed below.

With respect to proposed claim 56, Baker fails to, *inter alia*, show or suggest all the recited limitations. The Examiner asserts that computer software of Baker instructs a subscriber’s computer how to process encrypted teletext packets to locally generate teletext image data for display. FOA § XII ¶ 33, H&W 169. The proposed amendment to claim 56 sets forth processing remotely originated and locally supplied data. Baker

includes no suggestion that locally supplied data is processed. To the contrary, as noted by the Examiner, to generate the teletext image in Baker, the teletext packets are processed. These teletext packets are delivered from the headend. No locally supplied data is processed. Accordingly, Baker fails to teach processing remotely originated data and locally supplied data as required by proposed claim 56.

Applicants respectfully request that the rejection of claim 56 under 35 U.S.C. §103(a) as being unpatentable based on Baker in view of Gargini be withdrawn for at least the above reasons.

Claims 57-74 and 89-91 depend from independent claim 56. As discussed *supra*, Baker in view of Gargini fails to disclose every element of claim 56 and thus, *ipso facto*, Baker in view of Gargini fails to show or suggest the invention defined in dependent claims 57-74 and 89-91. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 57-74 and 89-91 be withdrawn for at least this reason.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Baker includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth that a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Baker fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Baker fails to suggest that the file format is identical among a plurality of video apparatus. For at least this

reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Baker.

**b. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84, and claims 85-87 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D.. Baker is not available as prior art against claim 84 and the claims dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Baker and Gargini as prior art is maintained, applicants distinguish the invention claimed in claim 84 and the claims dependent therefrom from the teachings of Baker and Gargini below.

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

In particular, claim 84 includes receiving a first discrete signal. This first discrete signal enables the receiver station to organize information in the first discrete signal with information in a second discrete signal to provide a processor instruction. The processor instruction instructs the receiver station to deliver a locally generated image for display in



conjunction with video. The locally generated image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

As discussed more fully above with respect to claim 56, Baker describes a multi-channel broadcasting system where encrypted teletext data are transmitted between a central terminal and subscriber terminals. Encryption information in the form of algorithms and a key is transmitted prior to the encrypted data.

Baker fails to suggest each step of the method defined in claim 84. Baker fails to show or suggest, and the Examiner fails to address, a first discrete signal as set forth in claim 84. Baker merely describes encrypted teletext signals. There is no suggestion that these teletext signals are discrete signals that are organized with other discrete signals to form processor instructions. Nor is there any suggestion that these teletext signals are formed by organizing any other discrete signals. Notwithstanding the above, Baker fails to suggest a processor instruction as set forth in proposed claim 84. The proposed amendment to claim 84 sets forth that a locally generated image is based on user specific data stored at the receiver station prior to organizing the processor instruction. Baker fails to suggest that the teletext image is based on user specific data that is stored at the receiver station prior to processing of the teletext data. Claim 84 sets forth that the processor instruction instructs the receiver station to deliver this locally generated image for display. As Baker fails to show or suggest such a locally generated image, Baker does not suggest such a processor instruction as set forth by proposed claim 84.

Applicants respectfully request that the rejection of claim 84 as being unpatentable under 35 U.S.C. §103(a) based on Baker in view of Gargini be withdrawn for at least the above reasons.

Claims 85-87 depend from independent claim 84. As discussed *supra*, Baker in view of Gargini fails to disclose every element of claim 84 and thus, *ipso facto*, these references fail to render dependent claims 85-87 obvious. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.

*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). For at least this reason, applicants respectfully request that this rejection of claims 85-87 be withdrawn.

Applicants propose to cancel claim 88. The cancellation of claim 88 will render the rejections of this claim moot.

**c. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93, and claims 94-100 and 102-109 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D. Baker is not available as prior art against claim 93 and the claims 94-100 and 102-109 dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection of claims 94-100 and 102-109 be withdrawn for at least this reason. However, assuming *arguendo* that the application of Baker as prior art is maintained, applicants distinguish the invention claimed in claim 93 and the claims dependent therefrom from the teachings of Baker and Gargini below.

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

In particular, claim 93 includes the step of organizing information contained in at least one first discrete signal at the receiver station with information contained a second

discrete signal. The proposed amendment to claim 93 sets forth that the step of generating an image is by processing at least one user specific subscriber datum based on a step of responding to a processor instruction.

As discussed more fully above with respect to claim 56, Baker describes a multi-channel broadcasting system where encrypted teletext data are transmitted between a central terminal and subscriber terminals. Encryption information in the form of algorithms and a key is transmitted prior the encrypted data.

With respect to claim, 93 Baker in view of Gargini fails to teach or suggest all of the elements of the claimed invention. In particular, neither of these references suggest generating an image to replace a portion of a video image by processing **a user specific datum** based on responding to a processor instruction that is organized from information in a first discrete signal and a second discrete signal, where the user specific datum is **stored prior** to organizing the processor instruction.

First, Baker fails to show or suggest the step of generating an image as set forth in claim 93. The Examiner relies on the encrypted teletext data to show the first discrete signal. The decryption key is relied upon to show a control signal. The decryption algorithm is relied upon to show the second discrete signal. FOA § XII ¶ 37, H&W 170-71. Proposed claim 93 also includes a user specific subscriber datum stored at the receiver station. Baker fails to suggest a first discrete signal, a second discrete signal and a user specific subscriber datum. Accordingly, Baker fails to show or suggest generating an image by processing such a user specific subscriber datum as set forth in proposed claim 93. The secondary reference to Gargini also fails to show generating an image by processing a stored subscriber datum.

Additionally, the user specific datum is recited as stored at the receiver station prior to the step of organizing. The applied references include no suggestion to store a user specific datum that is processed to generate an image. These references include no

suggestion of a user specific datum that is stored prior to organizing a processor instruction in response to which the image is generated.

Applicants respectfully request that the rejection of claim 93 under 35 U.S.C. §103(a) as being unpatentable based on Baker in view of Gargini be withdrawn for at least the above reasons.

Claims 94-109 depend from independent claim 93. As discussed *supra*, Baker in view of Gargini fails to show or suggest every element of claim 93 and thus, *ipso facto*, Baker in view of Gargini fails to render dependent claims 94-109 obvious. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request the withdrawal of this rejection of claims 94-109 for at least this reason.

Applicants propose to amend claim 101 to set forth that a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Baker in view of Gargini fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Baker in view of Gargini fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Baker and Gargini.

**d. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110, and claims 111-114 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D. Baker is not available as prior art against claim 110 and the claims dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection be withdrawn for

at least this reason. However, assuming *arguendo* that the application of Baker as prior art is maintained, applicants distinguish the invention claimed in claim 110 and the claims dependent therefrom from the teachings of Baker and Gargini below.

· Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, proposed claim 110 sets forth a processor instruction that is effective to program a receiver station to be able to respond to an additional processor instruction subsequently received by the receiver station. The additional processor instruction is effective at the at a receiver station to generate and output only a portion of a video presentation wherein the portion is based on user specific data stored at the receiver station. The first processor instruction comprises information organized from information contained in a first discrete signal and a second discrete signal. Claim 110 sets forth receiving and transmitting the first discrete signals and the additional processor instruction.

As discussed more fully above with respect to claim 56, Baker describes a multi-channel broadcasting system where encrypted teletext data are transmitted between a central terminal and subscriber terminals. Encryption information in the form of algorithms and a key is transmitted prior the encrypted data.

With respect to claim 110, Baker in view of Gargini fails to teach or suggest all of the claim elements of the invention. In particular, neither of these references suggest a **first processor instruction that is organized** from a first discrete signal and a second discrete signal **that is effective to program** a receiver station **to be able to respond to an additional processor instruction** that is effective at the receiver station to output only a portion of a video presentation that is based on **user specific data stored prior to organizing** the first processor instruction.

First, Baker fails to show or suggest a first processor instruction that is effective to program a receiver station to respond to an additional processor instruction. Baker describes downloading a decryption key and algorithm into a receiver station. Subsequently received teletext is then decrypted and displayed. Neither the decryption key nor the teletext data function as applicants' first processor instruction. The decryption key and algorithm are not organized from discrete signals. The teletext data is not effective to program a receiver station to be able to respond to an additional processor instruction. Accordingly, Baker fails to suggest a first processor instruction as set forth by proposed claim 110.

Additionally, Baker fails to show or suggest user specific data that serves as the basis to output a portion of the video presentation and is stored prior to organizing the first processor instruction. No signals that follow the decryption key and algorithm are effective to program the receiver to be able to respond to an additional processor instruction as required by the organized processor instruction as claimed. Accordingly, no user specific data is stored prior to organizing the processor instruction as set forth in claim 110.

Applicants respectfully request that the rejection of claim 110 under 35 U.S.C. §103(a) as being unpatentable based on Baker in view of Gargini be withdrawn.

Claims 111-114 depend upon independent claim 110. As discussed *supra*, Baker in view of Gargini fails to disclose every element of claim 110 and thus, *ipso facto*, Baker

in view of Gargini fails to render dependent claims 111-114 obvious. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 111-114 be withdrawn for at least this reason.

Applicants propose to cancel claim 115. The cancellation of claim 115 will render rejections against this claim moot.

**e. Independent Claim 116 and Dependent Claims Thereto.**

Claim 116, and claims 117, 118, 120-122 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D. Baker is not available as prior art against claim 116 and the claims dependent therefrom, for the reasons discussed above with respect to claim 56. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Baker as prior art is maintained, applicants distinguish the invention claimed in claim 116 and the claims dependent therefrom from the teachings of Baker and Gargini below.

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled

processor instruction, the receiver station of displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 sets forth a control signal that is effective at the remote intermediate transmitter station. The control signal is transmitted from the origination transmitter station to the remote intermediate transmitter station.

As discussed more fully above with respect to claim 56, Baker describes a multi-channel broadcasting system where encrypted teletext data are transmitted between a central terminal and subscriber terminals. Encryption information in the form of algorithms and a key is transmitted prior the encrypted data.

Baker fails to show or suggest a control signal that that is effective at a remote intermediate station. Claim 116 as proposed sets forth that the control signal is transmitted from an origination station to a remote intermediate transmitter station. A processor instruction includes information organized from a first discrete signal and a second discrete signal. The organizing may take place at either the remote intermediate station or a receiver station. Depending on where the organizing takes place, the control signal controls communication of either the first discrete signal or the processor instruction at the remote intermediate station. Baker fails to suggest any control signal that is transmitted from an origination station to a remote intermediate transmitter station that controls communication of either a discrete signal or a processor instruction at the remote intermediate transmitter station as set forth in proposed claim 116.

Applicants respectfully request that the rejection of claim 116 under 35 U.S.C. §103(a) as being unpatentable based on Baker in view of Gargini be withdrawn for at least the above reasons.

Claims 117, 118 and 120-122 depend upon independent claim 116. As discussed *supra*, Baker in view of Gargini fails to disclose every element of claim 116 and thus, *ipso facto*, Baker in view of Gargini fails to render dependent claims 117, 118 and 120-122 obvious. If an independent claim is nonobvious under 35 U.S.C. § 103, then any



claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 117, 118 and 120-122 be withdrawn for at least this reason.

Applicants propose to cancel claim 119. The cancellation of claim 119 will render the rejections of this claim moot.

**3. 35 U.S.C. § 103 (a) Rejection Based on Gargini in View of Baker.**

Paragraphs 40-41 of the FOA reject claims 80-92 & 157-161 under 35 U.S.C. § 103(a) as being unpatentable based on Gargini et al. in view of Baker. Applicants believe the Examiner intended to reject claims 80-88, 92, & 157-161, since claims 89-91 depend upon independent claim 56, which was not subject to this rejection. Applicants maintain that claims 89-91 are patentable in view of Gargini and Baker for the reasons set forth with respect to claim 56 in sections 1.a. and 2.a. above.

**a. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80, and claims 81 and 82 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 06/317,510 for the reasons discussed above in section III.D.. Gargini and Baker are not available as prior art against claim 80 and the claims dependent therefrom, as they were published after this effective filing date as discussed above. Applicants respectfully request that this rejection be withdrawn for at least this reason. However, assuming *arguendo* that the application of Gargini and Baker as prior art is maintained, applicants distinguish the invention claimed in claim 80 and the claims dependent therefrom from the teachings of Baker and Gargini below.

Claim 80 is a transmitter claim for an "origination transmitter station" (OTS) that transmits control signals and instruct signals to control operations at a downstream "intermediate transmitter station" (ITS) and a further downstream receiver station. The

OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

Specifically, claim 80 includes the step of transmitting at least one control signal from the origination transmitter. The control signal is effective to at the remote intermediate transmitter station to control communication of the video or the instruct signal.

As discussed more fully above with respect to claim 56, Gargini describes a cable television distribution system with two-way communication capability. In one embodiment, a television channel is dedicated to full field teletext signals and a second channel is dedicated to providing interactive services. If the subscriber unit transmits data over the system in response to information on the second channel, a system response is transmitted on a sub-page of teletext dedicated to that subscriber unit. The subscriber unit momentarily connects the teletext receiver to the first channel such that the data transmitted on the dedicated sub-page is acquired and inlaid on the picture received from the second channel. Gargini describes a headend linked by a trunk to exchanges which in turn supply signals to a group of subscriber units. Gargini at 3, ll. 12-22.

Baker describes a multi-channel broadcasting system where encrypted data are transmitted between a central terminal and subscriber terminals. Baker at 3. When a subscriber selects a secure channel, the subscriber terminal is temporarily connected to a separate channel for receiving encryption algorithm information (e.g., an algorithm and key). Baker at 4. The encryption algorithm information is stored and used to decrypt and encrypt data received and sent on the selected secure channel. Baker at 5. Baker mentions that the encryption algorithm information (algorithm and key) may be

downloaded into a computer. Baker at 7. Baker describes an example that includes transmitting data upstream representing a request for bank account information. Baker at 5. Downstream data from the headend includes a "picture signal appropriate to the bank" onto which the requested account data is superimposed. Baker at 5-6. Baker contemplates data transmitted in encrypted teletext form for reception by a teletext receiver.

Gargini in view of Baker fails to show or suggest the step of transmitting at least one control signal, wherein the control signal is effective to control communication of the video or the instruct signal at a remote intermediate transmitter station as set forth in proposed claim 80. The Examiner asserts that Gargini shows that headend (105) is for receiving and transferring control signals to the exchanges (109) to control the routing of the teletext data to the subscriber station (108). FOA § XII, ¶ 40.III, H&W 173. Gargini includes no such control signals. Gargini shows no control signal received at headend (105) that is transferred to the exchanges (109) to control the routing of the teletext data to the subscriber stations (108). The only routing of signals occurs in the group selectors (16) and the channel selectors (17). Gargini at 3 ll. 23-31. However, the group selectors (16) and the channel selectors (17) are controllable from a respective subscriber station. *Id.* Thus, the control signals for routing the television and any teletext data come upstream from the subscriber station. Control signals are not transferred from the headend to the exchanges as asserted by the Examiner. Baker is relied upon to show that the teletext data may be encrypted and that the decryption algorithms and decryption key may be delivered to the subscriber station. Baker also fails to suggest a control signal received at the headend that controls routing of teletext data. Therefore, Gargini in view of Baker fails to show or suggest transmitting, from an origination transmitter, a control signal that, at a remote intermediate transmitter station, controls communication of video or an instruct signal as set forth in claim 80.

Applicants respectfully request that the rejection of claim 80 as being unpatentable under 35 U.S.C. §103(a) based on Gargini in view of Baker be withdrawn for at least the above reasons.

Claims 81 and 82 depend upon independent claim 80. As discussed *supra*, Gargini fails to show or suggest every element of claim 80 and thus, *ipso facto*, Gargini fails to render obvious dependent claims 81 and 82. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). For at least this reason, applicants respectfully request that this rejection of claims 81 and 82 be withdrawn.

Applicants propose to cancel claims 83 and 92. The cancellation of claims 83 and 92 will render the rejections of these claims moot.

**4. 35 U.S.C. § 103 (a) Rejection based on Thonnart  
U.S. Pat. No. 4,431,281.**

Paragraphs 42-44 of the FOA reject claims 56-79, 84-91 & 93-156 under 35 U.S.C. § 103(a) as being unpatentable based on Thonnart.

**a. Independent Claim 56 and Dependent  
Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

receiving from said remote data source said remotely originated data to serve as a basis for displaying said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Thonnart discloses the transmission of teletext messages and logic sequence programming in digital form synchronously accompanied by analog data of stationary video images or short audio commentaries. These messages are converted for digital transmission to receiver stations on: 1) normal transmission channels during moments when the television transmitter is not broadcasting programs or during the time between two successive programs, or 2) on one or more normal channels reserved for the transmission of teletext information with images and/or audio commentary at all hours of the day.

The stationary video image, audio commentary and teletext (comprising text and/or diagrams) are prepared at a transmitter station for analog transmission into which identifier messages, or addresses, are incorporated. Additionally, a memory records a logic sequence for digital transmission that controls the reproduction of the stationary video image, audio commentary and teletext at the receiver station.

When the combined transmission is received at the viewer station, a teletext decoder (25) sends all information transmitted in the numerical (digital) form to detector (26), which sends the teletext to a teletext page memory (28) for display, and the information regarding the "logic of the exploitation of the entirety of the image" (as best understood, the digitally transmitted logic sequence), to a memory (27). An address detector (14) detects the transmitted stationary video images and short audio commentaries and routes them for preparation for presenting.

Additionally, a viewer can request via keyboard (29), 1) the received specific addressed teletext, stationary video images, and short audio commentaries for presentation previously transmitted and stored at the receiver station; and, 2) to the transmitter station via the transmission cable during a "silent" period of programming transmission, the transmission of particular information (comprising a logic sequence and its associated pre-stored stationary video image, audio commentary and teletext).

With respect to applicants' amended claim 56, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and  
simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Thonnart fails to teach or suggest any locally supplied data, distinct from the user request, that in combination with the received remotely originated data results in the generation of an image at the receiver station. The generation of applicants' local image based on the **remotely originated data and the locally supplied data** is distinct from Thonnart's output of teletext characters. Teletext data is originated /generated remotely from the receiver station and intended to be displayed at the receiver station. Applicants' claimed locally generated image based on a locally supplied data and remotely originated data is distinguishable from the mere conversion of data from one (i.e., transmitted teletext data) to another (i.e., teletext characters for display). Additionally, if Thonnart's teletext is deemed applicants' remotely originated data, it cannot also be applicants' claimed locally supplied data.

Additionally, Thonnart fails to teach or suggest the simultaneous display of this receiver station generated image with the image received from the remote video source.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Thonnart fails to disclose every element of amended claim 56 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Thonnart includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Thonnart fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Thonnart fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Thonnart.

**b. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The

processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Specifically, claim 84 includes the element of:

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

With respect to applicants' amended claim 84, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

[a] first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the "point of



emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) Therefore the logic sequence upon transmission from the point of emission is complete.

Moreover, it is clear that Thonnart’s transmitted complete logic sequence does not suggest the claimed transmission of **discrete signals** that must be organized into a complete processor instruction. Thonnart fails to teach or suggest the claim recitation of a signal transmitted from the transmitter station that provides a processor instruction at the receiver station for delivery of a locally generated image based on **user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction**.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 84 be withdrawn.

Claims 85-87 depend upon independent claim 84. As discussed *supra*, Thonnart fails to disclose every element of claim 84 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 85-87, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 88. The cancellation of claim 88 will render the rejections of this claim moot.

**c. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Specifically, claim 93 includes elements of:

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal;

passing at least one processor instruction from or within said at least one processor, said at least one processor instruction comprising said organized information from said step of organizing;

responding to said at least one processor instruction at said receiver station based on said step of passing said at least one processor instruction; and,

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

With respect to applicants' claim 93, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal;

passing at least one processor instruction from or within said at least one processor, said at least one processor instruction comprising said organized information from said step of organizing;

responding to said at least one processor instruction at said receiver station based on said step of passing said at least one processor instruction; and,

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions which at the receiver station cause the presentation of text, images and audio as mentioned above. However, Thonnart fails to teach or suggest, and the FOA fails to address the following features recited by the claims:

- 1) organization information in both a first transmitted discrete signal and a second signal at the receiver station to provide a processor instruction; and
- 2) wherein the processor instruction generates an image to replace only a portion of the video image based on user specific subscriber datum stored at said receiver station prior to the step of organizing the processor instruction.

Thonnart fails to teach or suggest any aspect of organizing information at the receiver station into a processor instruction that causes the generation of a presentation. The organizing of the logic sequence of Thonnart takes place at the transmitter station when images and audio segments are digitized and sequenced in RAM registers (2 & 9) for recording (on 12) and subsequent transmission with the logic sequence. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be **completely assembled** at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation, (Col. 2, ll. 36-46). After the

logic sequence is completed, it is “transmitted on a normal transmission channel during empty moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) In sum, the logic sequence upon transmission from the point of emission is complete. However, applicants’ claim language recites organization of information from two signals at the receiver station to form a processor instruction that in turn causes the generation of an image by processing a previously stored subscriber datum. This approach is not remotely suggested by Thonnart.

Additionally, Thonnart fails to generate an image based on processing a user specific subscriber datum stored at said receiver station prior to organizing the processor instruction. This additional feature of the claimed invention is not suggested by Thonnart.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Thonnart fails to disclose every element of claim 93 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 94-109, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Thonnart fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Thonnart fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed

above with respect to claim 93, applicants submit claim 101 is patentable in view of Thonnart.

**d. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, claim 110 includes elements of:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said

first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data;

transferring said at least said first discrete signal to at least one transmitter, and transmitting a first information signal including said first discrete signal;

receiving said additional processor instruction at said at least one transmitter station; and

transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.

With respect to applicants' amended claim 110, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data;

receiving said additional processor instruction at said at least one transmitter station; and

transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation, (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. This differs from applicants’ claimed approach of receiving at at least one transmitter station at least a first discrete signal containing information, wherein ... **a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal.** Thonnart fails to teach or suggest organizing information into a processor instruction outside of the “point of emission” or the origination station. In other words, Thonnart fails to teach the organizing of discrete signals at a receive station into a complete processor instruction.

Thonnart also teaches that the transmitted logic sequence alone controls the reproduction of text, images and sound data at the receiver station. Applicants claim a first processor instruction that is effective to program said at least one of said plurality of receiver stations to be able to respond to **an additional processor instruction** of said plurality of processor instructions subsequently received by said at least one of said

plurality of receiver stations. Thonnart fails to teach or suggest a second logic sequence transmitted at a separate time which is responded to at the receiver station programmed by a first transmitted logic sequence.

Moreover, Thonnart fails to teach outputting only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction.

Finally, Thonnart fails to teach the claim feature of receiving said additional processor instruction at said at least one transmitter station; and transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 110 be withdrawn.

Claims 111-114 depend upon independent claim 110. As discussed *supra*, Thonnart fails to disclose every element of claim 110 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 111-114, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 115. The cancellation of claim 115 will render the rejections of this claim moot.

**e. Independent Claim 116 and Dependent Claims Thereto.**

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first



discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 includes elements of:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

With respect to applicants' amended claim 116, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is

comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete.

Assuming that information in the logic sequence of Thonnart corresponds to applicants’ first discrete signal, and that the information transmitter of Fig. 1 corresponds

to applicants' origination transmitter station, Thonnart fails to teach or suggest applicants' processor instruction that is organized at either a remote transmitter station or a receiver station with information in said transmitted first discrete signal and a second discrete signal. Additionally, Thonnart fails to teach or suggest a transmitted control signal that operates to control the communication of the processor instruction or the first discrete signal at the remote transmitter station.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 116 be withdrawn.

Claims 117, 118 and 120-122 depend upon independent claim 116. As discussed *supra*, Thonnart fails to disclose every element of claim 116 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 117, 118 and 120-122, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 119. The cancellation of claim 119 will render the rejections of this claim moot.

**f. Independent Claim 123 and Dependent Claims Thereto.**

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in

conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Specifically, claim 123 includes elements of:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

With respect to applicants' amended claim 123, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on

user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. Thonnart fails to teach or suggest a control signal that 1) organizes information in a first discrete signal with information in a second discrete signal at a receiver station, and 2) provides an identifier.

Assuming that information in the logic sequence of Thonnart corresponds to applicants’ first discrete signal, and that the information transmitter of Fig. 1 corresponds to applicants’ origination transmitter station, Thonnart fails to teach or suggest applicants’ claimed control signal that organizes the information in the first discrete signal with information in a second signal, wherein the control signal also provides an identifier.

Thonnart additionally fails to teach or suggest the generated and output second image based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 123 be withdrawn.

Claims 124-127, 129, 140 and 141 depend upon independent claim 123. As discussed *supra*, Thonnart fails to disclose every element of claim 123 and thus, *ipso facto*, Thonnart fails to teach or suggest dependent claims 124-127, 129, 140 and 141, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claims 128 and 130-139. The cancellation of claims 128 and 130-139 will render the rejections of these claims moot.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Thonnart includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**5. 35 U.S.C. § 103 (a) Rejection based on Thonnart  
in View of Patfield, U.K. Pat. No. 2,167,917.**

Paragraph 45 of the FOA rejects claims 56-79, 84-91 & 93-156 under 35 U.S.C. § 103(a) as being unpatentable based on Thonnart in view of Patfield.

**a. Independent Claim 56 and Dependent  
Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 56, and claims 57-63, 65-74 and 89-91 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.**. Accordingly, Patfield is not available as prior art against claim 56 and the claims 57-63, 65-74 and 89-91 dependent therefrom.

Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior

art is maintained, applicants distinguish the invention claimed in claim 56 and the claims dependent therefrom from the teachings of Patfield below.

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

The Examiner’s two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to

justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 56.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that "the control information includes information for coordinating operation of the video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen." Patfield discloses no broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software "directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer..." The FOA then states that it would have been obvious to one of ordinary skill in the art to modify the logic sequences of Thonnart with the computer "generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component...."

Applicants respectfully traverse the combination of Patfield with Thonnart. Thonnart, as previously summarized above, describes a system where a logic sequence is broadcast to a plurality of receiver stations either directly, Figs. 1-4, or at the request of a



viewer, Fig. 5. This logic sequence is downloaded into decoder 26 and stored in memory 27 for successive reproduction of images, text and audio commentaries transmitted to the receiver station from the same source location. Patfield teaches away from any kind of a broadcast transmission of downloadable software or processor instructions. In fact, Patfield is best characterized as a magnetic recording of software with an accompanying video presentation on a video disk or tape (abstract, ll. 1-9), to be executed and played, respectively, at a computer controlled player/monitor system. The scope of Patfield is most similar to a prerecorded computer program for execution on a computer processor where instead of the computer program residing on a floppy disk or traditional computer magnetic media, it is encoded on the VBI of a video tape or disk with additional video programming occupying the video portion of the video tape or disk. Patfield teaches away from broadcast transmission or downloading of a computer program by stating: "with this invention, it is possible for a computer to recover such program or data from a video record or player in such a way that the latter's capacity ... is unaffected." (ll. 31-35.)

To state that Thonnart and Patfield are analogous in the art is improper since Thonnart discloses an application in broadcast media that Patfield specifically teaches away from. It is true that both references disclose the execution of software on a computer by a user. However, the references cannot be deemed analogous based on this fact alone while failing to take into consideration that there is no true "receiver station" of Patfield, but only a computer connected to a video tape player.

Therefore, applicants contend that there is no motivation to combine the teachings of Thonnart and Patfield since the references are not in fields of analogous art, and Thonnart fails to suggest any system, other than teletext, of directly controlling the generating and/or outputting of a locally produced video and audio components.

As discussed *supra*, Thonnart fails to disclose every element of independent claims 56, 84, 93, 110, 116 & 123 and their respective dependent claims, thus, *ipso facto*,

Thonnart in view of Patfield fails to teach or suggest the claim recitations of independent claims 56, 84, 93, 110, 116 & 123 and their respective dependent claims, and therefore, this rejection should be withdrawn and the claims be permitted to issue.

With respect to applicants' amended claim 56, Thonnart in view of Patfield fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and  
simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Thonnart and Patfield fail to teach or suggest any locally supplied datum, distinct from the user request that in combination with the received remotely originated data results in the generation of an image at the receiver station. The generation of applicants' local image based on the remotely originated data and the locally supplied datum is distinct from the output of teletext characters in that teletext data is originated /generated remotely from the receiver station and intended to be displayed at the receiver station. Applicants claim "generate" to distinguish from mere conversion of data from one (i.e., transmitted teletext data) to another (i.e., teletext characters for display). Additionally, if Thonnart's teletext is deemed applicants' remotely originated data, it cannot also be applicants' claimed locally supplied data.

Additionally, Thonnart and Patfield fail to teach or suggest the simultaneous display of this receiver station generated image with the image received from the remote video source.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of amended claim 56 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims

57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Thonnart includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Thonnart fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Thonnart fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Thonnart.

**b. Independent Claim 84 and Dependent Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 84, and claims 85-87 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.** Accordingly, Patfield is not available as prior art against claim 84 and the claims 85-87 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior art is maintained, applicants distinguish the invention

claimed in claim 84 and the claims dependent therefrom from the teachings of Patfield below.

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Specifically, claim 84 includes the element of:

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 84.

With respect to applicants' amended claim 84, Thonnart in view of Patfield fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

[a] first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that "the control information includes information for coordinating operation of the

video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen.” Patfield discloses no broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software “directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer...” The FOA then states that it would have been obvious to one of ordinary skill in the art to modify the logic sequences of Thonnart with the computer “generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component....”

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. However, neither Thonnart nor Patfield fails to teach or suggest the claim recitation of a signal transmitted from the transmitter station that provides a processor instruction at the receiver station for delivery of a locally

generated image based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 84 be withdrawn.

Claims 85-87 depend upon independent claim 84. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of claim 84 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims 85-87, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 88. The cancellation of claim 88 will render the rejections of this claim moot.

**c. Independent Claim 93 and Dependent Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 93, and claims 94-100 & 102-109 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.**. Accordingly, Patfield is not available as prior art against claim 93 and the claims 94-100 & 102-109 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior art is maintained, applicants distinguish the invention claimed in claim 93 and the claims dependent therefrom from the teachings of Patfield below.

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete

signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Specifically, claim 93 includes elements of:

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal;

passing at least one processor instruction from or within said at least one processor, said at least one processor instruction comprising said organized information from said step of organizing;

responding to said at least one processor instruction at said receiver station based on said step of passing said at least one processor instruction; and,

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to



justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 93.

With respect to applicants' claim 93, Thonnart fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal;

passing at least one processor instruction from or within said at least one processor, said at least one processor instruction comprising said organized information from said step of organizing;

responding to said at least one processor instruction at said receiver station based on said step of passing said at least one processor instruction; and,

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that "the control information includes information for coordinating operation of the video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen." Patfield discloses no

broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software “directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer...” The FOA then states that it would have been obvious to one of ordinary skill in the art to modify the logic sequences of Thonnart with the computer “generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component....”

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions which at the receiver station cause the presentation of text, images and audio as mentioned above. However, neither Thonnart nor Patfield teach or suggest, and the FOA fails to address two concepts in applicants’ claim recitation:

- 1) organization information in both a first transmitted discrete signal and a second signal at the receiver station resulting in at least one processor instruction; and
- 2) wherein the processor instruction generates an image to replace only a portion of the video image based on user specific subscriber datum stored at said receiver station prior to the step of organizing the processor instruction.

Thonnart and Patfield fail to teach or suggest any aspect of organizing information at the receiver station to cause the generation of a presentation. The organizing of the logic sequence of Thonnart takes place at the transmitter station when images and audio segments are digitized and sequenced in RAM registers (2 & 9) for recording (on 12) and subsequent transmission with the logic sequence. The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where

the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). (After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. However, applicants’ claim language recites organization of information from two signals at the receiver station to form a processor instruction that in turn causes the generation of an image by processing a stored subscriber datum.

Additionally, Thonnart and Patfield fail to generate an image based on processing a user specific subscriber datum stored at said receiver station.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of claim 93 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims 94-109, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Thonnart in view of Patfield fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Thonnart in view of Patfield fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason,

in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Thonnart in view of Patfield.

**d. Independent Claim 110 and Dependent Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 110, and claims 111-114 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.**. Accordingly, Patfield is not available as prior art against claim 110 and the claims 111-114 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior art is maintained, applicants distinguish the invention claimed in claim 110 and the claims dependent therefrom from the teachings of Patfield below.

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, claim 110 includes elements of:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete

signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data;

transferring said at least said first discrete signal to at least one transmitter, and transmitting a first information signal including said first discrete signal;

receiving said additional processor instruction at said at least one transmitter station; and

transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to

justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 110.

With respect to applicants' amended claim 110, Thonnart in view of Patfield fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data;

receiving said additional processor instruction at said at least one transmitter station; and

transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that “the control information includes information for coordinating operation of the video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen.” Patfield discloses no broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software “directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer...” The FOA then states that it would have been obvious to one of ordinary skill in the art to modify the logic sequences of Thonnart with the computer “generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component....”

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the

television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. This differs from applicants’ claim language of receiving at at least one transmitter station at least a first discrete signal containing information, wherein ... **a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal.** Neither Thonnart nor Patfield teach organizing information into a processor instruction outside of the “point of emission” or the origination station.

Thonnart also teaches that the transmitted logic sequence alone controls the reproduction of text, images and sound data at the receiver station. Applicants claim a first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to **an additional processor instruction** of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations. Thonnart and Patfield fails to teach or suggest a second logic sequence transmitted at a separate time which is responded to at the receiver station programmed by a first transmitted logic sequence. Thus, since Thonnart and Patfield fail to teach applicants’ additional processor instruction, Thonnart and Patfield fail to teach outputting only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction.

Additionally, Thonnart and Patfield fail to teach applicants’ claim language of receiving said additional processor instruction at said at least one transmitter station; and transferring said additional processor instruction to said at least one transmitter, and transmitting a second information transmission including said additional processor instruction.



Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 110 be withdrawn.

Claims 111-114 depend upon independent claim 110. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of claim 110 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims 111-114, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 115. The cancellation of claim 115 will render the rejections of this claim moot.

**e. Independent Claim 116 and Dependent Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 116, and claims 117-118 & 120-122 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.**. Accordingly, Patfield is not available as prior art against claim 116 and the claims 117-118 & 120-122 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior art is maintained, applicants distinguish the invention claimed in claim 116 and the claims dependent therefrom from the teachings of Patfield below.

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction.

Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 includes elements of:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 116.

With respect to applicants' amended claim 116, Thonnart in view of Patfield fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that “the control information includes information for coordinating operation of the video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen.” Patfield discloses no broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software “directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer...” The FOA then states that it would have been obvious to one of ordinary skill in the art to modify the logic sequences of Thonnart with the computer “generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component....”

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and

audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete.

Assuming that information in the logic sequence of Thonnart corresponds to applicants’ first discrete signal, and that the information transmitter of Fig. 1 corresponds to applicants’ origination transmitter station, Thonnart fails to teach or suggest applicants’ processor instruction that is organized at either a remote transmitter station or a receiver station with information in said transmitted first discrete signal and a second discrete signal. Additionally, Thonnart and Patfield fail to teach or suggest a transmitted control signal that operates to control the communication of the processor instruction or the first discrete signal at the remote transmitter station.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 116 be withdrawn.

Claims 117, 118 and 120-122 depend upon independent claim 116. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of claim 116 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims 117, 118, 120-122, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claim 119. The cancellation of claim 119 will render the rejections of this claim moot.

**f. Independent Claim 123 and Dependent Claims Thereto.**

Patfield is a British patent application published June 4, 1986. Claim 123, and claims 124-126, 129, 140 & 141 dependent therefrom, are entitled to the benefit of the filing date, November 3, 1981, of applicants' patent application no. 317,510 for the reasons discussed above in section **III.D.**. Accordingly, Patfield is not available as prior art against claim 123 and the claims 124-126, 129, 140 & 141 dependent therefrom. Applicants respectfully request that this rejection of these claims be withdrawn for at least this reason. However, assuming *arguendo* that the application of Patfield as prior art is maintained, applicants distinguish the invention claimed in claim 123 and the claims dependent therefrom from the teachings of Patfield below.

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Specifically, claim 123 includes elements of:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by

organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Thonnart with Patfield. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Thonnart in view of Patfield, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 123.

With respect to applicants' amended claim 123, Thonnart in view of Patfield fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

Patfield discloses a video recording having encoded computer programming in the VBI, such that when the video recording is played back at a computer controlled player/monitor system, the encoded programming (control information) is loaded into the computer for controlling the computer in selecting 1) computer produced material and/or 2) material from the recording for reproduction by the monitor (display) system. Claim 4 states that "the control information includes information for coordinating operation of the video player with operation of the computer to merge material from the computer with material from the video player for display on the television screen." Patfield discloses no broadcast or cablecast transmission of television programming, but merely the encoding of videotape for transport to playback at a different location.

The FOA differentiates Patfield from Thonnart in that Patfield not only had computer software encoded on media at a remote location that was executed at a receiver station, but that the software "directly controlled the generation and/or the outputting of the locally [produced] video/audio components by/from [the] computer..." The FOA then states that it would have been obvious to one of ordinary skill in the art to modify



the logic sequences of Thonnart with the computer “generation of Patfield to directly control the generation and/or outputting of [a] locally [produced] video/audio component....”

The FOA uses the logic sequence of Thonnart to represent downloadable processor instructions that at the receiver station cause the presentation of text, images and audio as mentioned above. This logic sequence is assembled at the “point of emission,” i.e., Thonnart’s Fig. 1, where the sound and video images are assembled for transmission. Thonnart specifically teaches that the logic sequence must be completely assembled at the programming station (“point of emission”) so that the text, images and audio may be reproduced at the receiver station (“point of reception”) in the correct sequential presentation (Col. 2, ll. 36-46). After the logic sequence is completed, it is “transmitted on a normal transmission channel during “empty” moments when the television transmitter does not broadcast programs or during the few seconds between two successive programs.” (Col. 3, ll. 18-23.) The logic sequence upon transmission from the point of emission is complete. Thonnart fails to teach or suggest a control signal that 1) organizes information in a first discrete signal with information in a second discrete signal at a receiver station, and 2) provides an identifier.

Assuming that information in the logic sequence of Thonnart corresponds to applicants’ first discrete signal, and that the information transmitter of Fig. 1 corresponds to applicants’ origination transmitter station, Thonnart fails to teach or suggest applicants’ claimed control signal that organizes the information in the first discrete signal with information in a second signal, wherein the control signal also provides an identifier.

Thonnart additionally fails to teach or suggest the generated and output second image based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 123 be withdrawn.

Claims 124-127, 129, 140 and 141 depend upon independent claim 123. As discussed *supra*, Thonnart in view of Patfield fails to disclose every element of claim 123 and thus, *ipso facto*, Thonnart in view of Patfield fails to teach or suggest dependent claims 124-127, 129, 140 and 141, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to cancel claims 128 and 130-139. The cancellation of claims 128 and 130-139 will render the rejections of these claims moot.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Thonnart includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**6. 35 U.S.C. § 103 (a) Rejection Based on Cox et al. U.S. Pat. No. 4,388,639 in View of “An Integrated Teletext and Viewdata Receiver” by Insam et al. and “Teletext and Viewdata – A Comprehensive Component Solution” by Beakhurst et al. Further in View of Betts, GB 1,556,366.**

Paragraphs 46-50 of the FOA reject claims 162-182 under 35 U.S.C. § 103(a) as being unpatentable based on Cox et al. in view of Insam et al. and Beakhurst et al, further in view of Betts.

**a. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 is a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to provide the code, wherein the code enables the receiver station to be able to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station prior to organizing the code.

Accordingly, claim 162 includes the elements of “receiving a video image at a transmitter station” and “receiving [a] first ... discrete signal[] [that] enables said at least one receiver station to organize information ... [in] ... [the] ... first ... discrete signal[] with information contained in a second ... discrete signal[]” so as to provide the code. The code enables the receiver station to be able to “identify a locally generated image and output [the] locally generated image in conjunction with [the] video image.” The “locally generated image [is] based on user specific data stored at [the] ... receiver station prior to [the] organizing of [the] code.” The transmitter station transmits the “video image” and the “first discrete signal” to a receiver station.

In paragraph 50, the Examiner’s four-part rejection indicates that claim 162 is obvious based on Cox in view of Insam and Beakhurst, further in view of Betts, GB 1,556,366.

Cox discloses a basic teletext system having a decoder for receiving and storing a selected page of text/graphic data, which is applied to a character generator for conversion to video character signals. In the “mixed mode” of Cox, the intensity of the

teletext character signals superimposed over the broadcast video is adjusted to enhance readability.

Insam discloses an integrated teletext/viewdata receiver that can process for viewing the conventional teletext transmitted in the television broadcast video, as well as the viewdata transmitted by the British Post Office system over the telephone lines.

Beakhurst is substantially cumulative of Insam. Beakhurst discloses a combined solution for teletext/viewdata reception. Beakhurst discloses that teletext is sent as a data line or row of 40 character codes (i.e., each row has 40 columns). Up to 24 rows may be sent per page of teletext. Address information for the column is not sent in the teletext, but is derived using a counter.

Betts, which is similar to Insam and Beakhurst, simply discloses an improved teletext receiver that simplifies circuitry by combining some of the functions in a CPU.

The Examiner's four-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of four separate references that is proposed. Second, this unlikely four-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, in paragraph 49 of the FOA the Examiner combines Cox with Insam and Beakhurst, and in paragraph 50 the Examiner further modifies that combination with Betts. However, in neither paragraph does the Examiner provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the four-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Cox in view of Insam and Beakhurst, and further in view of Betts, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 162. In particular, none of these references, alone or in combination, teach the transmission of discrete signals that are used to **organize code** at a receiver station that is effective to (a) **identify a locally generated image** that is **based on previously-stored user specific data** and (b) output the locally generated image with a remotely transmitted video image. Because the proposed combination fails to teach all of the claim recitations, the rejection fails to establish a *prima facie* case of obviousness on this separate basis.

First, none of the applied references teaches the transmission of discrete signals that are used to organize code at a receiver station. Each of the references discloses the transmission of character data, not discrete signals used to organize code. In applicants' important advance, discrete signals can be transmitted in piecemeal fashion to be organized and assembled into code. This technique for controlling receiver station operations by transmitted discrete signals to be assembled into code is not even suggested by the applied references.

Additionally, none of the applied references teaches such code for (a) identifying a locally generated image and (b) outputting the locally generated image with a remotely transmitted video image. At best, the references cumulatively teach a mixed mode display where stored teletext pages are displayed with a conventional television image. Whatever embedded logic exists in the applied references fails to disclose (a) identifying a locally generated image for (b) output with a remotely transmitted image. This is because the applied systems do not identify a locally generated image. In teletext, based on a user selection of a page, the teletext packets are extracted from the VBI and stored in a memory. When they are selected for character conversion, the teletext packets are still digital character codes; they are not an image stored in memory. Therefore, the applied

references never disclose identifying a locally generated image for output. Any identification operation found in the teletext references would be identification of digital data, not an image.

Additionally, applicants' recited locally generated image is based on **user specific data**. Such a locally generated image based on user specific data is not even remotely suggested by the applied references. In short, in applicants' claimed invention the local image represents **image content** that is at least in part locally-determined. The claim clearly distinguishes between the broadcast image content (e.g., the broadcast "video image") and the local image content (e.g., the "locally generated image"), indicating that the local image is not merely derived from broadcast content such as by converting broadcast teletext codes. Rather, the locally generated image is at least partially determined based on stored user specific data.

Moreover, applicants' recited locally generated image is based on user specific data that is **stored prior to the organizing of the code**. Thus, the applied teletext references not only fail to teach or suggest the claimed locally generated image, but they also fail to teach or suggest such a locally generated image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by the references.

In the applied teletext references, the Examiner incorrectly suggests that selected teletext pages are a "locally generated image." Such selected teletext pages are not a "locally generated image" because their image content is **fully determined** before it ever arrives at the receiver station (e.g. the content of P. 12 of a teletext magazine is fully defined by the characters transmitted therein). The receiver station teletext decoder simply converts this content (character codes) to the corresponding symbols for display. The claimed functionality of a "locally generated image" with at least partially locally-determined content based on user specific data (not merely converting teletext codes) is not suggested whatsoever by these teletext references. An example of such user specific

data would be the stock data used to generate a local image in applicants' "Wall Street Week" example. In fact, the broadcast paradigm of the teletext references, where all image content is fully determined by the broadcast transmission, clearly teaches away from the claimed approach.

The Examiner's assertion in paragraph 46 that user remote-control "control signals" cause character data to be organized is not only incorrect--it simply misses the point. The claim relates to discrete signals transmitted by a **transmitter station** (not a user) to cause **code** (not character data) to be organized. Such user-issued control signals for selecting a teletext page do not remotely suggest the claimed approach for a transmitted station to cause the organization of code at downstream receiver stations. Similarly, the assertion that transmitted teletext character data represents the code is incorrect. This teletext data is merely information that is converted by the character generator into the corresponding graphics symbols. This teletext data does not operate or in any way constitute instructions or code that, for example, is executed to control a receiver station computer or processor.

Even if one accepted the implausible assertion, i.e., that transmitted teletext character data is organized into "code," then the assertion reduces to the absurd. That is because the claim provides that the organized code identifies a local image for output. If the transmitted teletext data is the code, then to conform to the claim the transmitted teletext data would have to identify an image for output. However, if the teletext data is the code, the teletext data/code is the image that is output. Obviously the transmitted teletext of the references does not teach the recited discrete signals organized into code.

Additionally, the Examiner's point in paragraph 50 that the Betts reference would motivate the modification of the Cox teletext decoder to be controlled by a local CPU running software also misses the point. In the claimed invention, discrete signals transmitted by a transmitter station are then organized into code effective to control operations at the receiver station. There is no suggestion in Betts whatsoever that the

software running on the CPU is the result of discrete signals transmitted from a transmitter station to allow transmitter control over receiver station operations.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 162 be withdrawn.

Claims 163-166 depend upon independent claim 162. As discussed *supra*, Cox in view of Insam and Beakhurst, further in view of Betts, fails to disclose or suggest every element of claim 162 and thus, *ipso facto*, does not render dependent claims 163-166 unpatentable. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, for at least the same reasons enunciated for claims 162, the rejection of dependent claims 163-166 should be withdrawn.

Moreover, claim 164 further provides that a plurality of receiver stations concurrently respond to the code that was organized based on the transmitted discrete signals from the transmitter station. The teletext type references asserted by the Examiner, alone or in their four-part combination, fail to teach or suggest this additional feature.

**b. Independent Claim 167 and Dependent Claims Thereto.**

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.



Accordingly, claim 167 includes elements of “organizing information . . . in [the] . . . first discrete signal . . . with information . . . in a second discrete signal based on [a] control signal.” The organized information is used for a processor instruction effective at said receiver station for “passing . . . [and displaying] . . . a portion of a locally generated . . . video graphic image . . . based on user specific data stored at [the] receiver station prior to [the] . . . organizing” and “only a portion of [the remotely transmitted] . . . video image.”

In paragraph 48, the Examiner’s three-part rejection indicates that claim 167 is obvious based on Cox in view of Insam and Beakhurst.

Cox discloses a basic teletext system having a decoder for receiving and storing a selected page of text/graphic data, which is applied to a character generator for conversion to video character signals. In the “mixed mode” feature of Cox, the intensity of the teletext character signals superimposed over the broadcast video is adjusted to enhance readability.

Insam discloses an integrated teletext/viewdata receiver that can process for viewing the conventional teletext transmitted in the television broadcast video, as well as viewdata transmitted by the British Post Office system over the telephone lines.

Beakhurst is substantially cumulative of Insam. Beakhurst discloses a combined solution for teletext/viewdata reception. Beakhurst discloses that teletext is sent as data lines or rows having 40 character codes. Up to 24 rows may be sent per page of teletext.

The Examiner’s three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of three separate references that is proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, in paragraph 48 of the FOA the Examiner combines Cox with Insam and Beakhurst. However, the Examiner does not

provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, or **how** these disparate references would be combined. In fact, rather than combining the references, the Examiner seems to be asserting that Insam and Beakhurst disclose what is implicit in Cox (i.e., the decoder structure). If this is the case, the Examiner's rejection actually amounts to a modification of the primary reference, Cox, to "fill the gaps" between Cox and the claimed invention. However, the Examiner's analysis in paragraph 48 (and paragraph 46, to which paragraph 48 refers) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination of the three references, or the necessary modifications to Cox. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Cox were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Cox in view of Insam and Beakhurst fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, none of the applied references teaches the **transmission of discrete signals that are organized into a processor instruction** at a receiver station, or output of a **locally generated image that is based on previously-stored user specific data**.

First, each of the references discloses the transmission of character data, not discrete signals that are organized into a processor instruction. In applicants' important invention, discrete signals can be transmitted in piecemeal fashion to be organized and assembled into processor instructions. This technique for controlling receiver station operations by transmitted discrete signals to be organized into a processor instruction is not even suggested by the applied references.

Next, the applied references, alone or in combination, fail to teach or even suggest such a processor instruction that is effective to pass and display a portion of a locally generated full screen video image to be presented with only a portion of a remotely transmitted full screen video image, thereby replacing the previously-displayed first full-screen video image with the new second full screen video image. The only possibly relevant feature of the applied references would be the so-called “mixed mode” feature of Cox et al. where a user selection of a teletext page results in the superimposition of the teletext page onto the broadcast video. However, the “mixed mode” feature of Cox et al. operations are initiated by a **user-issued command from a remote control, not an instruction whose content originates from an upstream transmitter station.** Therefore, it is clear that the applied references fail to disclose the recited combined presentation that is controlled by instruction information originating from an upstream transmitter.

Also, none of the applied references teach or suggest the creation of a locally generated image that is based on user specific data. In short, the local image represents **image content** that is at least in part locally-determined. The claim clearly distinguishes between the broadcast image content (e.g., the broadcast “first video graphic image”) and the local image content (e.g., the “locally generated video graphic image”), indicating that the local image is not merely derived from broadcast content such as by converting broadcast teletext codes. Rather, the locally generated image is at least partially determined based on stored user specific data.

Finally, the recited locally generated image is based on user specific data that is **stored prior to the organizing of the processor instruction.** Thus, the applied teletext references not only fail to teach or suggest the claimed locally generated image, but they also fail to teach or suggest such a locally generated image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by the references.

The Examiner's main point regarding claim 167, set forth at paragraph 48, seems to be that the "bytes of teletext data contained within the teletext data packets of Cox et al. represent[] some type of 'downloadable code.'" As explained above for claim 162, the teletext data is nothing more than symbolic data that is mechanically converted into its corresponding graphic symbols. It is data, not code or instructions. It does not program or control a processor or computer. The applied art itself characterizes the teletext data as data, not code or instructions. Further, applicants respectfully submit that the basic distinction between data and code/instructions has been well-established and well-understood in this art for many years.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 167 be withdrawn.

Claims 168-170 depend upon independent claim 167. As discussed *supra*, Cox in view of Insam and Beakhurst fails to disclose every element of independent claim 167. Therefore, it follows that Cox in view of Insam and Beakhurst fails to teach or suggest dependent claims 168-170. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Moreover, claim 168 further provides that the portion of the locally generated second image is **generated** in accordance with the processor instruction that was organized. This feature, the generation of a local image in accordance with a processor instruction that is organized from discrete signals transmitted from a transmitter station, is not disclosed or suggested by the applied references.

Applicants respectfully request that this rejection should be withdrawn and the claims be permitted to issue.

**c. Independent Claim 171 and Dependent Claims Thereto.**

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station prior to the organizing of the processor instruction.

Accordingly, claim 171 includes the features of “receiving at a transmitter station [a first] discrete signal that contains only partial information of [a] processor instruction” and “receiving [a] control signal[] . . . operative at [a] receiver station . . . to organize [the] partial information [of the first discrete signal] with information contained in a second discrete signal” into a “processor instruction.” At the receiver station, the processor instruction is effective to “direct[] . . . a portion of [a] second completed full-screen video graphic image” that is “based on user specific data stored at [the] receiver station prior to [the] organizing” for display with a “portion of [a] first completed full-screen video graphic image” in order to present the second completed full-screen image. The first discrete signal and control signal received at the transmitter station are transmitted from the transmitter station.

In paragraph 50, the Examiner’s four-part rejection concludes that claim 171 is obvious based on Cox in view of Insam and Beakhurst, and further in view of Betts.

Cox discloses a basic teletext system having a decoder for receiving and storing a selected page of text/graphic data, which is applied to a character generator for conversion to video character signals. In the “mixed mode” feature of Cox et al. the intensity of the teletext character signals superimposed over the broadcast video is adjusted to enhance readability.

Insam discloses an integrated teletext/viewdata receiver that can process for viewing the conventional teletext transmitted in the television broadcast video, as well as viewdata over the telephone lines.

Beakhurst is substantially cumulative of Insam. Beakhurst discloses a combined solution for teletext/viewdata reception. Beakhurst discloses that teletext is sent as pages of data having up to 24 rows of 40 character-wide codes. Up to 24 rows may be sent per page of teletext.

Betts, which is similar to Insam and Beakhurst, simply discloses an improved teletext receiver that simplifies circuitry by combining some of the functions in a CPU.

The Examiner's four-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of four separate references that is proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim**.

Regarding motivation for the combination, in paragraph 50 of the FOA the Examiner combines Cox with Insam, Beakhurst, and Betts. However, the Examiner does not provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, nor **how** these disparate references would be combined. In fact, for the initial combination (Cox with Insam and Beakhurst), rather than combining those references, the Examiner seems to be asserting that Insam and Beakhurst disclose what is implicit in Cox (i.e., the decoder structure). If this is the case, the Examiner's rejection actually amounts to a modification of the primary reference, Cox, to "fill the gaps" between Cox and the claimed invention. However, the Examiner's analysis in paragraph 50 (and paragraphs 46 and 49, to which paragraph 50 refers) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination, nor the

necessary modifications to Cox. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of references and modification of Cox were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Cox in view of Insam and Beakhurst, and further in view of Betts fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, none of these references, alone or in combination, teach the **transmission of discrete signals that are organized into a processor instruction** at a receiver station. Nor do the references teach such a processor instruction that is **organized in response to a transmitted control signal**. Nor do the references teach such a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **direct a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image. Finally, none of the applied references teach or suggest such a second graphics image that is based on previously stored user specific data.

First, none of the applied references teaches the transmission of discrete signals that are used to organize instructions at a receiver station. Each of the references discloses the transmission of character data, not discrete signals that are organized into instructions. In applicants' important advance, discrete signals can be transmitted in piecemeal fashion to be organized and assembled into instructions. This technique for controlling receiver station operations by transmitted discrete signals to be assembled into instructions is not even suggested by the applied references.

Additionally, none of the applied references teach that a control signal can be transmitted from the transmitter station to control or cause the organization of the discrete signals into a processor instruction. In teletext, the "control signals" are issued by a user at the receiver site via remote control; they are not issued and transmitted by an upstream

transmitter station. Additionally, such user-issued commands in teletext do not cause the organizing of transmitted discrete signals into processor instructions. Instead, such user-issued commands simply cause the teletext receiver to perform basic predefined operations, such as to select the teletext mode, select a page, and the like.

Additionally, the applied references, alone or in combination, fail to teach or even suggest such a processor instruction whose content derives from a remote transmission and which is effective to pass and display a portion of a second full screen video image to be presented with only a portion of a first full screen video image, thereby replacing the previously-displayed first full-screen video image with the new second full screen video image. The only possibly relevant feature of the applied references would be the so-called “mixed mode” feature disclosed in Cox where a user selection of a teletext page results in the superimposition of the teletext page onto the broadcast video. However, the “mixed mode” feature of Cox et al. operations are initiated by a user-issued command from a remote control, not an instruction whose content originates from an upstream transmitter station.

Also, none of the applied references teach or suggest the output of a second graphics image that is based on user specific data. In short, the second graphics image represents **image content** that is at least in part locally-determined. This second graphics image is not merely derived from broadcast content such as by converting broadcast teletext codes; rather, the second graphics image is at least partially determined based on stored user specific data.

Finally, the recited second graphics image is based on user specific data that is **stored prior to the organizing of the processor instruction**. Thus, the applied teletext references not only fail to teach or suggest the claimed second graphics image, but they also fail to teach or suggest such a second graphics image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by the references.



The Examiner's assertion in paragraph 46 (the Examiner's rejection of claim 171 in paragraph 50 is based on the analysis of claim 179 in paragraph 46) that user remote-control "control signals" cause character codes to be "organized" misses the point. The claim relates to control signals transmitted by a **transmitter station** (not a user) to cause a **processor instruction** (not character data) to be organized. The user-issued control signals for selecting a teletext page do not remotely suggest the claimed approach. Similarly, the assertion that transmitted teletext data represents instructions or code is incorrect. This teletext data is merely information that is converted by the character generator into the corresponding graphics symbols. This teletext data does not operate or in any way constitute instructions or code that, for example, is executed to control a receiver station computer or processor.

Additionally, the Examiner's point in paragraph 50 that the Betts reference would motivate the modification of the Cox teletext decoder to be controlled by a local CPU running software also misses the point. In the claimed invention, discrete signals transmitted by a transmitter station are then organized into an instruction signal effective to control operations at the receiver station. There is no suggestion in Betts whatsoever that the software running on the CPU is the result of discrete signals transmitted from a transmitter station to allow transmitter control over receiver station operations.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 171 be withdrawn.

Claims 172-174 depend upon independent claim 171. As discussed *supra*, Cox in view of Insam and Beakhurst, further in view of Betts fails to disclose or suggest every element of independent claim 171. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, it follows that this cited art fails to render dependent claims 172-174 unpatentable, and therefore, this rejection should be withdrawn.

**d. Independent Claim 175 and Dependent Claims Thereto.**

Claim 175 is an OTS transmitter claim directed to controlling operations at downstream ITS and further downstream receiver stations. In claim 175, a first video graphic image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS. In claim 175, either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS to control the communication of (1) the processor instruction (if the ITS is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. Based on the assembled processor instruction, a portion of a second graphic image is displayed with a portion of a first graphics image, rendering a complete second graphic image.

Accordingly, claim 175 includes the features of transmitting from the origination station transmitter “[a first] discrete signal that contains . . . only part of [a] processor instruction . . . [that] is organized from information contained in [the first] discrete signal with information contained in a second discrete signal.” The origination transmitter also transmits a control signal that is (1) “effective at [the] remote intermediate transmitter station to control communication of the [a] first completed full- screen video graphic image and [the] processor instruction . . . when [the] remote intermediate transmitter station is adapted to organize [the] processor instruction, and (2) “effective at [the] remote intermediate transmitter station to control communication of [a] first completed full-screen video graphic image and [the first] discrete signal . . . when [the] receiver station is adapted to organize [the] processor instruction.” At the receiver station, the processor instruction is effective to “generate[ ] and output[ ] . . . a portion of a second completed full-screen video graphic image” for display with a “portion of [the] first

completed full-screen video graphic image” in order to present the second completed full-screen image. The first discrete signal and the control signal are transmitted from the transmitter station.

In paragraph 49, the Examiner’s three-part rejection concludes that claim 175 is obvious based on Cox in view of Insam and Beakhurst.

Cox discloses a basic teletext system having a decoder for receiving and storing a selected page of text/graphic data, which is applied to a character generator for conversion to video character signals. In the “mixed mode” feature of Cox et al. the intensity of the teletext character signals superimposed over the broadcast video is adjusted to enhance readability.

Insam discloses an integrated teletext/viewdata receiver that can process for viewing the conventional teletext transmitted in the television broadcast video, as well as viewdata over the telephone lines.

Beakhurst is substantially cumulative of Insam. Beakhurst discloses a combined solution for teletext/viewdata reception. Beakhurst discloses that teletext is sent as pages of data having up to 24 rows of 40 character-wide codes. Up to 24 rows may be sent per page of teletext.

The Examiner’s three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of three separate references that is proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, in paragraph 49 (*see* also paragraph 46) of the FOA the Examiner combines Cox with Insam and Beakhurst. However, the Examiner does not provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, nor **how** these disparate references would be combined. In fact, rather than combining the references, the Examiner seems to be

asserting that Insam and Beakhurst disclose what is implicit in Cox (i.e., the decoder structure). If this is the case, the Examiner's rejection actually amounts to a modification of the primary reference, Cox, to "fill the gaps" between Cox and the claimed invention. However, the Examiner's analysis in paragraph 49 (and paragraph 46, to which paragraph 49 refers) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination of the three references, nor the necessary modifications to Cox. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Cox were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Cox in view of Insam and Beakhurst fails, *inter alia*, to teach or suggest all the elements of the claimed invention. In particular, none of these references, alone or in combination, teach the **transmission of discrete signals that are organized into a processor instruction** at an intermediate transmitter station or at a receiver station. Nor do the references teach a **control signal that controls the communication of such discrete signals or of such a processor instruction** at an intermediate transmitter station. Nor do the references teach such a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **generate and output a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image.

First, none of the applied references teaches the transmission of discrete signals that are used to organize instructions at an intermediate transmission station or at a receiver station. Each of the references discloses the transmission of character data, not

discrete signals that are organized into instructions. In applicants' invention, discrete signals can be transmitted in piecemeal fashion to be organized and assembled into instructions. This technique for controlling receiver station operations by transmitted discrete signals to be assembled into instructions is not even suggested by the applied references.

Additionally, none of the applied references teach that a control signal can be transmitted from the transmitter station to control the communication of such discrete signals or of a processor instruction at an **intermediate transmitter station**. In teletext, the "control signals" are issued by a user at the receiver site; they are not issued and transmitted by an upstream transmitter station to control operations at an intermediate transmission station. Moreover, such user-issued commands simply cause the teletext receiver to perform basic predefined operations, such as to select the teletext mode, select a page, and the like. They do not cause the communication of discrete signals or processor instructions to further downstream stations.

Additionally, the applied references, alone or in combination, fail to teach or even suggest a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **generate and output a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image.

The only possibly relevant feature of the applied references would be the so-called "mixed mode" where a user selection of a teletext page results in the superimposition of the teletext page onto the broadcast video. However, the "mixed mode" operations are initiated by a user-issued command from a remote control, not an instruction whose content originates from an upstream transmitter station.

The Examiner's assertion in paragraph 46 (the rejection of claim 175 in paragraph 49 is based on the rejection of claim 179 in paragraph 46) that user remote-control

“control signals” cause character codes to be organized misses the point. The claim relates to discrete signals transmitted by a **transmitter station** (not a user) that result in a **processor instruction** (not organized character data). The user-issued control signals for selecting a teletext page do not remotely suggest the claimed approach. Similarly, the assertion that transmitted teletext data represents instructions or code is incorrect. This teletext data is merely information that is converted by the character generator into the corresponding graphics symbols. This teletext data does not operate or in any way constitute instructions or code that, for example, is executed to control a receiver station computer or processor.

Additionally, the Examiner’s assertion in paragraph 49 that Cox inherently includes a broadcast station for inserting the teletext stream into the conventional TV signal and transmitting the combined transmission also misses the point. The claim provides that the transmitter station transmits control signals effective at an intermediate transmitter station, as well as discrete signals used to derive processor instructions effective at a receiver station. The teletext stream transmitted by any broadcast station arguably inherent in Cox does not operate to control operations at an intermediate transmitter station, nor at a receiver station. Cox’s teletext data is merely information that is converted by the character generator into the corresponding graphics symbols.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 175 be withdrawn.

Claim 176 depends upon independent claim 175. As demonstrated above, independent claim 175 is nonobvious over the cited art. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). It follows that this cited art fails to render dependent claim 176 unpatentable, and therefore, this rejection should be withdrawn.

Moreover, dependent claim 176 further provides that the OTS transmits audio that describes information displayed in the presentation at the receiver station. This additional element is not disclosed or suggested by the applied references, and therefore, this rejection should be withdrawn.

Finally, applicants propose to cancel claims 177-178. The cancellation of these claims renders the rejection of claims 177-178 moot.

**e. Independent Claim 179 and Dependent Claims Thereto.**

Claim 179 is a receiver station claim that is similar to claim 167. In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Accordingly, claim 179 includes the elements of “receiving . . . [and] displaying . . . [a] series of video images including a first completed full-screen video graphic image,” “detecting . . . passing . . . [and] organizing information [from a remotely transmitted] . . . first discrete signal . . . with information [from] . . . a second discrete signal . . . based on [a] control signal” in order to provide a “processor instruction,” where the processor instruction is effective to cause a “portion of a locally generated second completed full-screen video graphic image . . . based on user specific data stored at [the] receiver station prior to . . . [the] . . . organizing” to be displayed with a “portion of [the] first completed

full-screen video graphic image” to render the “second completed full-screen video graphic image.”

In paragraphs 46 and 49, the Examiner’s three-part rejection concludes that claim 179 is obvious based on Cox in view of Insam and Beakhurst.

Cox discloses a basic teletext system having a decoder for receiving and storing a selected page of text/graphic data, which is applied to a character generator for conversion to video character signals. In the “mixed mode” feature of Cox et al. the intensity of the teletext character signals superimposed over the broadcast video is adjusted to enhance readability.

Insam discloses an integrated teletext/viewdata receiver that can process for viewing the conventional teletext transmitted in the television broadcast video, as well as viewdata over the telephone lines.

Beakhurst is substantially cumulative of Insam. Beakhurst discloses a combined solution for teletext/viewdata reception. Beakhurst discloses that teletext is sent as pages of data having up to 24 rows of 40 character-wide codes. Up to 24 rows may be sent per page of teletext.

The Examiner’s three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of three separate references that is proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, in paragraph 49 of the FOA the Examiner combines Cox with Insam and Beakhurst. However, the Examiner does not provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, nor **how** these disparate references would be combined. In fact, rather than combining the references, the Examiner seems to be asserting that Insam and Beakhurst disclose what is implicit in Cox (i.e., the decoder structure). If this is the case, the



Examiner's rejection actually amounts to a modification of the primary reference, Cox, to "fill the gaps" between Cox and the claimed invention. However, the Examiner's analysis in paragraph 49 (and paragraph 46, to which paragraph 49 refers) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination of the three references, nor the necessary modifications to Cox. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Cox were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Cox in view of Insam and Beakhurst, fails to, *inter alia*, teach or suggest all the elements of claim 179. In particular, none of the applied references teaches the **transmission of discrete signals that are organized into a processor instruction** at a receiver station and, moreover, where the organized processor instruction is effective to cause the a **portion of a locally generated image based on previously-stored user specific data** to be displayed with a **portion of a remotely transmitted video image**.

First, each of the references discloses the transmission of character data, not discrete signals that are organized into a processor instruction. In applicants' important advance, discrete signals can be transmitted in piecemeal fashion to be organized and assembled into processor instructions. This technique for controlling receiver station operations by transmitted discrete signals to be organized into a processor instruction is not even suggested by the applied references.

Next, none of the applied references teach or suggest the creation of a locally generated image that is based on user specific data. In short, the local image represents **image content** that is at least in part locally-determined. The claim clearly distinguishes

between the broadcast image content (e.g., the broadcast video images) and the local image content (e.g., the “locally generated image”), indicating that the local image is not merely derived from broadcast content such as by converting broadcast teletext codes. Rather, the locally generated image is at least partially determined based on stored user specific data.

Moreover, the recited locally generated image is based on user specific data that is **stored prior to the organizing of the processor instruction**. Thus, the applied teletext references not only fail to teach or suggest the claimed locally generated image, but they also fail to teach or suggest such a locally generated image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by the references.

Finally, the applied references, alone or in combination, fail to teach or even suggest such a processor instruction that is effective to pass and display a portion of a second full screen video image to be presented with only a portion of a first full screen video image, thereby replacing the previously-displayed first full-screen video image with the new second full screen video image. The only possibly relevant feature of the applied references would be the so-called “mixed mode” feature of Cox et al. where a user selection of a teletext page results in the superimposition of the teletext page onto the broadcast video. However, the “mixed mode” operations are initiated by a user-issued command from a remote control, not an instruction whose content originates from an upstream transmitter station.

The Examiner’s main points regarding claim 179 are based on the assertion that the teletext references disclose user-issued “control signals” for selecting teletext pages that cause the teletext character data to be “organized,” and that this organized information constitutes “instructions” to control the character generator. *See* paragraph 46 of the FOA.

However, as explained previously, the claimed invention is directed to the transmission of discrete signals that are organized into **processor instructions** at a receiver station. The teletext character data is simply data that is converted into corresponding graphic symbols; it is not organized into processor instructions. There is no suggestion whatsoever in the applied teletext references that the teletext character data is used to organize or create processor instructions so as to control receiver station operations.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 179 be withdrawn.

Claims 181-182 depend upon independent claim 179. As discussed *supra*, Cox in view of Insam and Beakhurst fails to teach or suggest every element of claim 179. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, it follows that the rejection of claims 181-182 should be withdrawn as well.

Moreover, dependent claim 182 further provides that outputted audio from the transmitter station that is output with the video presentation states a significance of information displayed in the video graphic presentation. This additional element is not disclosed or suggested by the applied references, and therefore, this rejection should be withdrawn.

Finally, applicants propose to cancel claim 180. The cancellation of this claim renders the rejection of claim 180 moot.

**7. 35 U.S.C. § 103 (a) Rejection Based on Campbell et al. U.S. Pat. No. 4,536,791.**

Paragraphs 51 and 107 of the FOA reject all of the claims 56-182 under 35 U.S.C. § 103(a) as being unpatentable based on Campbell, et al. U.S. Pat. No. 4,536,791 (“Campbell”).

As an initial matter, applicants traverse the rejection because the Examiner has not demonstrated that Campbell is prior art against those claims entitled to priority to the 1981 specification (i.e., all claims except for dependent claims 64, 76, 101, and 127). In fact, the rejection based on Campbell does not indicate under which section of 35 U.S.C. § 102 the reference is available. Campbell is not available under § 102(a) or § 102(b) because its date of issue is after the November 3, 1981 priority date of the invention for all claims entitled to 1981 priority. Under § 102(e), the Campbell reference is available as of November 27, 1981, also after the November 3, 1981 priority date. In sum, applicants assert that the rejection of all claims entitled to 1981 priority should be withdrawn until and unless the Examiner demonstrates that Campbell is effective prior art. Nevertheless, without admitting or conceding that the cited Campbell reference is available, applicants will, *arguendo*, respond to the merits of the rejection.

**a. Independent Claim 56 and Dependent Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Accordingly, claim 56 includes the elements of “originating at [the] video apparatus . . . a first request . . . [and] communicating [the] first request . . . to a remote data source;” “receiving from [the] remote data source [the] remotely originated data;” “processing [the] remotely originated data and [the] locally supplied data . . . to generate [a] locally generated image;” and “displaying [the] locally generated image [with the remotely transmitted] image . . . from [a] remote video source.”

In paragraph 51, the Examiner has rejected claim 56 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” See Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. See Campbell, Abstract, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 51 of the FOA the Examiner rejects claim 56 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever as to **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 56. In particular, Campbell does not teach or suggest the

issuance of a **user request** to a **remote data source** for remotely-originated data that is used to create a **locally-generated video image** based on the remotely-originated data and locally-supplied data. Moreover, Campbell fails to teach or suggest the display of such a **locally-generated video image** with a **remotely-transmitted video image** received from a distinct **remote video source**.

The only “user request” that Campbell discloses is a user request that can be made “in advance” so that the headend can issue a conditional access control signal for a single event, such as a boxing match. Campbell does not disclose or suggest that such a request is made to a **remote data source**, or that the request is honored by providing **data used to create a locally-generated video image** to be output with a remotely-transmitted video image. In applicants’ invention, the image is a locally-generated image because the **basis of its content** (remotely originated data and locally supplied data) is separate from the broadcast in which the remotely-transmitted video image is found. Campbell does not disclose or suggest this feature.

Therefore, it is clear that Campbell fails to disclose or suggest the user request of the present invention, as well as the locally-generated video image of the present invention. Moreover, applicants’ claimed locally-generated video image is based on both remotely-originated data and locally-supplied data. There is not even a remote suggestion of such a concept made by Campbell.

The Examiner’s reference in paragraph 51 to Campbell’s teletext capability is inapposite. First, Campbell’s teletext data is not provided in response to a user request transmitted to a **remote data source**; Campbell’s teletext is provided in response the user pressing the “teletext” button to issue a command to Campbell’s converter box.

Additionally, any teletext overlay provided in Campbell is not locally generated within the meaning of applicants’ claim because Campbell’s teletext content is not based on remotely originated data and locally supplied data separate from the broadcast in

which the remotely-transmitted video is found. In Campbell, the teletext data and the programming it might supplement are both found in the broadcast transmission.

And finally, in contrast to Campbell, applicants' locally-generated image is based on both remotely-originated data (e.g., stock price data) and locally-supplied data (e.g., the user's stored portfolio). Campbell's conventional teletext feature does not remotely suggest this feature.

In sum, the locally-generated images of the claimed invention are patentably distinct from the teletext overlays of Campbell.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 56 be withdrawn.

Claims 57-74, 76, and 89-91 depend upon independent claim 56. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, because independent claim 56 is patentable based on Campbell, it follows that dependent claims 57-74, 76, and 89-91 are also patentable based on Campbell.

Moreover, claim 58 further provides that the video apparatus is programmed to store a processor instruction, detect a received instruct signal, and execute the processor instruction in response to the instruct signal. Campbell fails to disclose or suggest these additional features recited by claim 58.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Campbell et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Claim 65 further provides that the video apparatus organizes information in a first discrete signal with information in a second discrete signal in order enable to the video

apparatus to process a processor instruction. This additional feature is not disclosed or suggested by Campbell.

Claim 72 further provides that the video apparatus is programmed to respond to an instruction by receiving a programming transmission from the remote video source. This additional feature is not disclosed or suggested by Campbell.

Applicants have proposed canceling claim 75 & 77-79, thereby rendering the rejection of that claim moot.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Campbell et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Campbell et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Campbell et al.

**b. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80 is a transmitter claim for an “origination transmitter station” (OTS) that transmits control signals and instruct signals to control operations at a downstream “intermediate transmitter station” (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.



Accordingly, claim 80 includes the elements of “transmitting . . . from an origination transmitter to a remote intermediate transmitter station . . . [the remotely transmitted] video and an instruct signal . . . operative . . . at [a] receiver station to . . . generate [or] output a locally generated portion . . . and cause [the] locally generated portion of [the] video presentation to be displayed in conjunction with [the remotely transmitted] video;” and “transmitting [a] control signal” that is effective “at the remote intermediate transmitter station to control communication of . . . [the remotely transmitted] video” and/or the “instruct signal.”

In paragraph 107, the Examiner has rejected claim 80 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event /subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” *See* Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. *See* Campbell, Abstract. The user can select a “text” button to see text presented with the programming. *See* Campbell, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 80 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but

instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or disclose each of the elements of the invention defined by claim 80. In particular, Campbell fails to teach or suggest the **headend transmission of control signals** that control operations at intermediate transmitter stations, such as to **control ITS communication** of video and/or instruct signals. Campbell also fails to teach or suggest the headend transmission of **instruct signals through an intermediate transmission station** that control operations at further downstream receiver stations, such as to cause the **creation of a combined presentation at a receiver station** including **locally-generated video** and remotely-transmitted video.

First, Campbell discloses the transmission of control signals for enabling descrambling at converter boxes, not for controlling communication at an intermediate station that further transmits to receiver stations. Campbell's control signals (and teletext data) do not remotely suggest the recited control signals that control operations at an intermediate transmission station.

Next, Campbell fails to disclose the transmission of instruct signals through an intermediate transmission station that control operations at further downstream receiver stations. Campbell's control signals for causing descrambling are transmitted directly to receiver stations, not through an intermediate transmission station as in the claimed invention.

Next, as explained previously regarding the conventional teletext references, Campbell's transmitted teletext data does not disclose or suggest the recited transmitted instruct signal. Campbell's transmitted teletext data merely represents data codes to be converted to characters, not instruct signals that control the receiver station. In applicants' invention the instruct signals are executed to render the combined presentation. In Campbell, teletext codes are merely selected for conversion to corresponding graphic characters.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 80 be withdrawn.

Claims 81-82 depend upon independent claim 80. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, because independent claim 80 is patentable based on Campbell, it follows that dependent claims 81-82 are also patentable based on Campbell for at least the same reasons.

Applicants have proposed canceling claims 83 and 92, thereby rendering the rejection of these claims moot.

**c. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user

specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Accordingly, claim 84 includes the elements of “transmitting [the remotely-transmitted] video and [a] first discrete signal to [a] receiver station,” whereby the “first discrete signal is operative to provide [a] processor instruction . . . by enabling [the] receiver station to organize information . . . in [the] first discrete signal with information . . . in a second . . . discrete signal[,]” whereby the “processor instruction instructs [the] receiver station to deliver a locally generated image for display in conjunction with [the remotely-transmitted] video.” The locally generated image is “based on user specific data stored at [the] receiver station prior to [the] organizing of [the] processor instruction.”

In paragraph 107, the Examiner has rejected claim 84 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” *See* Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. *See* Campbell, Abstract. The user can select a “text” button to see text presented with the programming. *See* Campbell, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 84 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. See paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all elements of the invention defined by claim 84. In particular, Campbell fails to teach the headend transmission of **discrete signals** (e.g., signal words) that are organized at a receiver station into **processor instructions** that are then effective at the receiver station to deliver a **locally generated image based on previously-stored user specific data** in combination with a **remotely-transmitted image**.

Figure 11 of Campbell discloses the transmission of control signals for conditional access control (channel control word 200) and authorization (enable words 210, 220, and 230). As best understood by applicants, such control signals are **individually** detected and used to control access and configure authorization. There is no suggestion whatsoever that such control signals are “organized” into processor instructions. In fact, it is readily apparent that the control signal words disclosed in Figure 11 of Campbell are self-contained, self-standing signal units that are not “assembled” into a processor instruction before they are effective.

Nor do the other data signals of Campbell disclosed in Figure 11, such as the text transmission word 250 (teletext), constitute the claimed discrete signals that are

organized into processor instructions. Campbell's teletext word 250 merely conveys a series of teletext codes as conventionally known. As previously discussed, such teletext codes are simply graphic codes to be converted to characters; they are not instructions or pieces of instructions.

Also, as explained previously, Campbell does not disclose or suggest the claimed locally generated image based on user specific data that is combined with the remotely-transmitted image. In the claimed locally-generated image, user specific data (e.g., stock price data) is processed to create the local image. In Campbell, any teletext overlays are not generated based on user specific data. Instead, they are simply generated based on the character codes transmitted in the broadcast.

Moreover, applicants' recited locally generated image is based on user specific data that is **stored prior to the organizing of processor instruction**. Thus, Campbell not only fails to teach or suggest the claimed locally generated image, it also fails to teach or suggest such a locally generated image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by Campbell.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 84 be withdrawn.

Claims 85-87 depend upon independent claim 84. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, because independent claim 84 is patentable based on Campbell, it follows that dependent claims 85-87 are patentable for at least the same reasons.

Applicants have proposed canceling claim 88, thereby rendering the rejection of that claim moot.

**d. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Accordingly, claim 93 includes the elements of “receiving,” “detecting,” and “passing” a “first discrete signal to [a] processor,” “organizing . . . [the] first discrete signal . . . with . . . a second discrete signal” to produce a “processor instruction,” whereby the processor instruction is operative to cause “generat[ion of] an image to replace . . . a portion of [the first] video image by processing . . . user specific subscriber dat[a] stored at [the] receiver station prior to . . . organizing” so as to output a presentation of “firstly, [the first] video image, and secondly, [the locally] generated image to replace . . . [a] portion of [the first] video image.”

In paragraph 107, the Examiner has rejected claim 93 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event

authorization when the user orders the event “in advance.” *See* Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. *See* Campbell, Abstract. The user can select a “text” button to see text presented with the programming. *See* Campbell, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 93 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all of the elements of the invention of claim 93. In particular, Campbell fails to teach the headend transmission of **discrete signals** (e.g., signal words) that are organized at a receiver station into **processor instructions**. Moreover, Campbell fails to teach or suggest the organization of such processor instructions at a receiver station that are then effective at the receiver station to create a **locally generated image** based on processing **stored user specific subscriber**



**data** to replace a portion of a **first image** so as to render a **presentation sequence** of the first image and then the portion-modified first image.

First, Campbell does not disclose or suggest the headend transmission of discrete signals to be organized at a receiver station into processor instructions.

Figure 11 of Campbell discloses the transmission of control signals for conditional access control (channel control word 200) and authorization (enable words 210, 220, and 230). As best understood by applicants, such control signals are **individually** detected and used to control access and configure authorization. There is no suggestion whatsoever that such control signals are “organized” into processor instructions. In fact, it is readily apparent that the control signal words disclosed in Figure 11 of Campbell are self-contained, self-standing signal units that are not “assembled” into a processor instruction before they are effective.

Nor do the other data signals of Campbell disclosed in Figure 11, such as the text transmission word 250 (teletext), constitute the claimed discrete signals that are organized into processor instructions. Campbell’s teletext word 250 merely conveys a series of teletext codes as conventionally known. As previously discussed, such teletext codes are simply graphic codes to be converted to characters; they are not instructions or pieces of instructions.

Second, Campbell does not disclose or suggest the claimed locally generated image content that is based on user specific data. As explained for claim 84, the claimed locally generated image content is based on processing user specific data. An example would be the stock data processed in the “Wall Street Week” example. Campbell’s teletext overlays are based on converting the transmitted character codes, they are not based on processing any sort of **stored user specific subscriber data**. In contrast, any overlay created by Campbell is based on processing broadcast teletext data, not prestored user specific data.

Moreover, applicants' recited locally generated image is based on user specific data that is **stored prior to the organizing of processor instruction**. Thus, Campbell not only fails to teach or suggest the claimed locally generated image, it also fails to teach or suggest such a locally generated image that is based on user specific data that was previously stored. This approach is not even remotely contemplated by Campbell.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, because claim 93 is patentable based on Campbell, it follows that dependant claims 94-109 are patentable based on Campbell for at least the same reasons.

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Campbell et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Campbell et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Campbell et al.

**e. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction.

The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Accordingly, claim 110 includes the elements of “receiving at [a] transmitter station . . . a first discrete signal . . . wherein . . . a first . . . processor instruction[] comprises information organized from . . . [the] first discrete signal and . . . a second discrete signal,” where the processor instruction is “effective to program [the] receiver station[] to be able to respond to an additional processor instruction . . . subsequently received . . . [that is] effective . . . to output . . . a portion of [a] video presentation . . . based on user specific data stored at [the] . . . receiver station[] prior to [the] organizing of [the] first processor instruction;” and “transmitting . . . [the] first discrete signal” and “transmitting . . . [the] additional processor instruction.”

In paragraph 107, the Examiner has rejected claim 110 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” *See* Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. *See* Campbell, Abstract. The user can select a “text” button to see text presented with the programming. *See* Campbell, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the

required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 110 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. See paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all of the elements of the invention of claim 110. In particular, Campbell fails to teach the headend transmission of **discrete signals** (e.g., signal words) which at a receiver station are organized into **processor instructions** effective to program the receiver station to respond to a distinct and subsequent processor instruction effective to **output** a portion of a video presentation based on **previously-stored user specific data.**

As discussed above in this section addressing claim 93, Campbell does not disclose, suggest or imply the headend transmission of discrete signals that are organized into processor instructions at receiver stations.

Additionally, Campbell does not disclose the headend transmission of such discrete signals for organizing a processor instruction that is further effective to program the receiver station to be able to respond to separate, subsequent processor instructions. Campbell's control signals enable the receiver station to receive selected TV programs;

they do not program the receiver station to be able to respond to subsequent processor instructions.

Next, the Examiner is referred to the discussion above for claim 93 and claim 84 regarding how Campbell fails to teach or suggest the output of local images based on user specific data.

Similarly, the Examiner is referred to the discussion above for claim 93 and claim 84 regarding how Campbell fails to teach such local images based on user specific data that was stored prior to the organization of the processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 110 be withdrawn.

Claims 111-114 depend upon independent claim 110. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because independent claim 110 is patentable based on Campbell, it follows that dependent claims 111-114 are also patentable based on Campbell for at least the same reasons.

Applicants have proposed canceling claim 115, thereby rendering the rejection of that claim moot.

**f. Independent Claim 116 and Dependent Claims Thereto.**

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete

signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station displays a locally-generated image with remotely-generated video from the ITS.

Accordingly, claim 116 provides for “transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station.” The origination transmitter also transmits a “control signal” which is (i) “effective at [the] remote intermediate transmitter station to control communication of [the] processor instruction . . . when [the] remote intermediate transmitter station is adapted to organize,” and/or which is (ii) “effective at [the] remote intermediate transmitter station to control communication of [the] first discrete signal . . . when [the] receiver station is adapted to organize.” The processor instruction is organized based on “information contained in [the] first discrete signal and information contained in a second discrete signal,” and is effective at the receiver station to “display a locally generated image in conjunction with [remotely transmitted] video [from the ITS].”

In paragraph 107, the Examiner has rejected claim 116 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” *See* Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. *See* Campbell, Abstract, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to

reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 116 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all of the elements of the invention defined by claim 116. In particular, Campbell fails to teach the headend transmission of **discrete signals** that can be organized at an **intermediate transmitter station or a receiver station** into processor instructions effective at the receiver station to **display a locally generated image in connection with remotely transmitted video**. Campbell also does not teach the recited **control signal** that **controls communication at an intermediate transmission station**, such as the communication of such discrete signals or processor instructions.

First, as discussed above in this section addressing claim 93, Campbell does not disclose, suggest or imply the headend transmission of discrete signals that are organized into processor instructions at **receiver stations**.

Second, Campbell does not disclose, suggest or imply headend transmission of discrete signals that are organized at an **intermediate transmission station** into a processor instruction then forwarded downstream to receiver stations.

Third, Campbell does not teach or suggest the headend transmission of control signals that control communication of discrete signals/processor instructions at intermediate transmitter stations. Campbell's control signals (*see* Figure 11) control access and authorization configuration at receiver stations; they do not control communications at intermediate transmission stations whatsoever.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 116 be withdrawn.

Claims 117-118 and 120-122 depend upon independent claim 116. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because claim 116 is patentable based on Campbell, it follows that dependent thereon claims 117-118 and 120-122 are also patentable based on Campbell.

Applicants have proposed canceling claim 119, thereby rendering the rejection of that claim moot.

**g. Independent Claim 123 and Dependent Claims Thereto.**

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.



Accordingly, claim 123 includes the elements of the transmitter station transmitting an “instruct signal, [a] first discrete signal, and [a] control signal.” The “control signal [is] operative [at a receiver station] to provide . . . [an] identifier . . . by organizing . . . partial information” of the identifier contained in the “first discrete signal” with “information contained in a second discrete signal.” The identifier operates at the receiver station to “designate[] . . . [the] second image . . . and . . . cause . . . [the] instruct signal to be effective.” The “instruct signal . . . generate[s] and output[s] [the locally generated] second image . . . with [the remotely transmitted] first image.” The locally generated second image is based on “user specific data stored at . . . [the] . . . receiver station[] prior to [the] organizing of [the] identifier.”

In paragraph 107, the Examiner has rejected claim 123 as unpatentable based on Campbell under § 103(a). Campbell discloses an addressable cable TV system where a central station can send scrambled programming and data signals (i.e., control signals and text signals) in the VBI to addressable terminals. The control signals include subscriber address data and channel control (authorization) data. The control signals can be directed to the addressable terminals to configure terminal access based on channel/tier/event/subject matter. The control signals may be sent down to effectuate per-event authorization when the user orders the event “in advance.” See Campbell, Col. 12, ll. 26-34. A character generator generates display signals to display the text signals. See Campbell, Abstract, Col. 17, ll. 21-34.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 123 under § 103(a). Because the rejection is made under

§ 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 123. In particular, Campbell fails to teach or disclose the headend transmission of control signals and discrete signals to receiver stations, where the **control signals are effective to cause information from discrete signals to be organized into an identifier that is necessary for a transmitted instruct signal to be effective**. Nor does Campbell teach the transmission of such a instruct signal for producing a **locally generated second image based on previously-stored user specific data** for display with a remotely-transmitted first image.

First, Campbell teaches that control signals may be transmitted for controlling program access/configuring authorization to enable descrambling. Campbell's control signals do to operate whatsoever to cause partial identifiers in discrete signals to be organized to allow separately transmitted instruct signals to be effective.

In a related manner, Campbell does not teach the transmission of partial identifiers from the headend that are "assembled" to be effective. Each of the data words disclosed in Campbell (*see* Figure 11) are self-standing and complete.

Also, as explained above in this section addressing claims 93 and 84, Campbell does not disclose or suggest the claimed locally-generated image content based on user

specific data. Campbell's teletext overlays are not based on user specific data as per the claim.

Similarly, the Examiner is referred to the discussion above for claim 93 and claim 84 regarding how Campbell fails to teach such local images based on user specific data that was stored prior to organizing something necessary for an instruction, such as an identifier for an instruct signal as recited by claim 123.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 123 be withdrawn.

Claims 124-127, 129, and 140-141 depend upon independent claim 123. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, it follows that claims 124-127, 129, and 140-141 are also patentable based on Campbell for at least the same reasons as for independent claim 123.

Moreover, claim 127 includes an additional feature not disclosed or suggested by Campbell. For claim 127, priority is asserted only to the 1987 specification. Claim 127 further provides for the transmission of data that enables a receiver station to determine that the second image based on user specific data is complete. This additional feature is not disclosed or suggested by Campbell.

Applicants have proposed canceling claim 128 and claims 130-139, thereby rendering the rejection of those claims moot.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Campbell et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**h. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 is a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to provide the code, wherein the code enables the receiver station to be able to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station prior to organizing the code.

Accordingly, claim 162 includes the elements of “receiving a video image at a transmitter station” and “receiving [a] first ... discrete signal[] [that] enables said at least one receiver station to organize information ... [in] ... [the] ... first ... discrete signal[] with information contained in a second ... discrete signal[]” so as to provide the code. The code enables the receiver station to be able to “identify a locally generated image and output [the] locally generated image in conjunction with [the] video image.” The “locally generated image [is] based on user specific data stored at [the] ... receiver station prior to [the] organizing of [the] code.” The transmitter station transmits the “video image” and the “first discrete signal” to a receiver station.

In paragraph 107 of the Office Action, the Examiner has rejected claim 162 based on Campbell. As discussed in greater detail above, Campbell generally discloses the transmission of control signals to control channel access and authorization, as well as the transmission of data signals for carrying teletext type data.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to

reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 162 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. See paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 162.

In particular, Campbell fails to teach the transmission of discrete signals that are used to **organize code** at a receiver station that is effective to (a) **identify a locally generated image** that is **based on previously-stored user specific data** and (b) output the locally generated image with a remotely transmitted video image.

The Examiner is referred to the above discussion in this section directed to claim 84 above for the reasoning as to why Campbell does not teach or suggest the claimed discrete signals, code or processor instructions, and locally generated image based on user specific data. Similarly, the Examiner is referred to the discussion above for claim 93 and claim 84 regarding how Campbell fails to teach such local images based on user specific data that was stored prior to organizing something necessary for the presentation, such as the code recited in claim 162.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 162 be withdrawn.

Claims 163-166 depend upon independent claim 162. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, because claim 162 is patentable based on Campbell, it follows that dependent claims 163-166 are also patentable based on Campbell for at least the same reasons.

**i. Independent Claim 167 and Dependent Claims Thereto.**

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Accordingly, claim 167 includes elements of “organizing information . . . in [the] . . . first discrete signal . . . with information . . . in a second discrete signal based on [a] control signal.” The organized information is used for a processor instruction effective at said receiver station for “passing . . . [and displaying] . . . a portion of a locally generated . . . video graphic image . . . based on user specific data stored at [the] receiver station prior to [the] . . . organizing” and “only a portion of [the remotely transmitted] . . . video image.”

In paragraph 107 of the Office Action, the Examiner has rejected claim 167 based on Campbell. As discussed in greater detail above, Campbell generally discloses the transmission of control signals to control channel access and authorization, as well as the transmission of data signals for carrying teletext type data.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 167 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 167. In particular, Campbell fails to teach the **transmission of discrete signals that are organized into a processor instruction** at a receiver station, nor output of a **locally generated image that is based on previously-stored user specific data.**

The Examiner is generally referred to the above discussion in this section directed to claim 84 above for the reasoning as to why Campbell does not teach or suggest the claimed discrete signals and processor instructions, nor the recited locally generated image based on user specific data, nor such locally generated images based on user specific data stored prior to organizing the processor instruction.

Regarding the recited "control signals" of the invention, Campbell's user-issued commands are inapplicable because such user-issued commands cause a control-type

module in Campbell's box to take predefined, preprogrammed actions; they do not cause discrete signals to be organized into processor instructions. The Examiner's assertion throughout the Office Action that such user-commands cause packets of teletext data to be "organized" into units that represent processor instructions or code is incorrect.

In sum, Campbell fails to disclose or suggest the discrete signals, the control signals, the assembled processor instructions, and the locally generated images based on previously-stored user specific data that are provided for in the invention of claim 167.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 167 be withdrawn.

Claims 168-170 depend upon independent claim 167. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because independent claim 167 is patentable based on Campbell, it follows that claims 168-170 are patentable for at least the same reasons.

Moreover, claim 168 further provides that the portion of the locally generated second image is **generated** in accordance with the processor instruction that was organized. This feature, the generation of a local image in accordance with a processor instruction that is organized from discrete signals transmitted from a transmitter station, is not disclosed or suggested by the applied references.

**j. Independent Claim 171 and Dependent Claims Thereto.**

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete



second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station prior to the organizing of the processor instruction.

Accordingly, claim 171 includes the features of “receiving at a transmitter station [a first] discrete signal that contains only partial information of [a] processor instruction” and “receiving [a] control signal[] . . . operative at [a] receiver station . . . to organize [the] partial information [of the first discrete signal] with information contained in a second discrete signal” into a “processor instruction.” At the receiver station, the processor instruction is effective to “direct[] . . . a portion of [a] second completed full-screen video graphic image” that is “based on user specific data stored at [the] receiver station prior to [the] organizing” for display with a “portion of [a] first completed full-screen video graphic image” in order to present the second completed full-screen image. The first discrete signal and control signal received at the transmitter station are transmitted from the transmitter station.

In paragraph 107 of the Office Action, the Examiner has rejected claim 171 based on Campbell. As discussed in greater detail above, Campbell generally discloses the transmission of control signals to control channel access and authorization, as well as the transmission of data signals for carrying teletext type data.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 171 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be

required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 171. In particular, Campbell fails to teach the **transmission of discrete signals that are organized into a processor instruction** at a receiver station. Nor does Campbell teach such a processor instruction that is **organized in response to a transmitted control signal**. Nor does Campbell teach such a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **direct a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image. Finally, Campbell fails to teach or suggest such a **second graphics image that is based on previously-stored user specific data**.

The Examiner is referred to the discussion in this section of claims 84 and 167 above for the reasoning as to why Campbell does not teach or suggest the claimed discrete signals and processor instructions. The Examiner is referred to the discussion in this section of claim 167 above for reasoning as to why Campbell does not teach or suggest control signals that cause such organizing to occur.

The Examiner is referred to the discussion in this section of claims 84 and 93 above for reasoning as to why Campbell does not teach or suggest a locally generated image based on user specific data.

The Examiner is referred to the discussion in this section of claims 84 and 93 above for reasoning as to why Campbell does not teach or suggest a locally generated

image based on user specific data that was stored prior to organizing the processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 171 be withdrawn.

Claims 172-174 depend upon independent claim 171. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Because independent claim 171 is patentable based on Campbell, it follows that dependent claims 172-174 are patentable for at least the same reasons.

**k. Independent Claim 175 and Dependent Claims Thereto.**

Claim 175 is an OTS transmitter claim directed to controlling operations at downstream ITS and further downstream receiver stations. In claim 175, a first video graphic image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS. In claim 175, either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS to control the communication of (1) the processor instruction (if the ITS is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. Based on the assembled processor instruction, a portion of a second graphic image is displayed with a portion of a first graphics image, rendering a complete second graphic image.

Accordingly, claim 175 includes the features of transmitting from the origination station transmitter “[a first] discrete signal that contains . . . only part of [a] processor instruction . . . [that] is organized from information contained in [the first] discrete signal with information contained in a second discrete signal.” The origination transmitter also

transmits a control signal that is (1) “effective at [the] remote intermediate transmitter station to control communication of the [a] first completed full- screen video graphic image and [the] processor instruction . . . when [the] remote intermediate transmitter station is adapted to organize [the] processor instruction, and (2) “effective at [the] remote intermediate transmitter station to control communication of [a] first completed full-screen video graphic image and [the first] discrete signal . . . when [the] receiver station is adapted to organize [the] processor instruction.” At the receiver station, the processor instruction is effective to “generate[ ] and output[ ] . . . a portion of a second completed full-screen video graphic image” for display with a “portion of [the] first completed full-screen video graphic image” in order to present the second completed full-screen image. The first discrete signal and the control signal are transmitted from the transmitter station.

In paragraph 107 of the Office Action, the Examiner has rejected claim 175 based on Campbell. As discussed in greater detail above, Campbell generally discloses the transmission of control signals to control channel access and authorization, as well as the transmission of data signals for carrying teletext type data.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 175 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. *See* paragraphs

107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 175. In particular, Campbell does not teach or suggest the **transmission of discrete signals that are organized into a processor instruction** at an intermediate transmitter station or at a receiver station. Nor does Campbell teach or suggest a **control signal that controls the communication of such discrete signals or such a processor instruction** at an intermediate transmitter station. Nor does Campbell teach or suggest such a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **generate and output a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image.

The Examiner is referred to the discussion in this section of claim 116 above for reasoning as to why Campbell does not disclose or suggest the recited discrete signals for rendering processor instructions effective at a receiver station, nor the recited control signals for controlling communication at an intermediate transmission station.

Additionally, the applied references, alone or in combination, fail to teach or even suggest a processor instruction whose **content derives from a transmitter transmission** and which is effective at a receiver station to **generate and output a portion of a second completed full-screen video graphics image** for display with a **portion of a first completed full-screen video graphics image** so as to present the second completed full-screen image.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 175 be withdrawn.

Claim 176 depends upon independent claim 175. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, it follows that dependent claim 176 is patentable based on Campbell for at least the same reasons as set forth for claim 175.

Moreover, claim 176 further provides for the transmission of audio that describes the information displayed in the video presentation. This further feature is not disclosed or suggested by Campbell.

Claims 177 and 178 have been proposed for cancellation by applications. Accordingly, the rejection of these claims is rendered moot.

**I. Independent Claim 179 and Dependent Claims Thereto.**

Claim 179 is a receiver station claim that is similar to claim 167. In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Accordingly, claim 179 includes the elements of “receiving . . . [and] displaying . . . [a] series of video images including a first completed full-screen video graphic image,” “detecting . . . passing . . . [and] organizing information [from a remotely transmitted] . . . first discrete signal . . . with information [from] . . . a second discrete signal . . . based on [a] control signal” in order to provide a “processor instruction,” where the processor

instruction is effective to cause a “portion of a locally generated second completed full-screen video graphic image . . . based on user specific data stored at [the] receiver station prior to . . . [the] . . . organizing” to be displayed with a “portion of [the] first completed full-screen video graphic image” to render the “second completed full-screen video graphic image.”

In paragraph 107 of the Office Action, the Examiner has rejected claim 179 based on Campbell. As discussed in greater detail above, Campbell generally discloses the transmission of control signals to control channel access and authorization, as well as the transmission of data signals for carrying teletext type data.

The Examiner’s rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the modifications necessary to Campbell in order to reconstruct the claimed invention. Second, the modification of Campbell **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the modification, in paragraph 107 of the FOA the Examiner rejects claim 179 under § 103(a). Because the rejection is made under § 103(a), the Examiner recognizes that Campbell does not disclose the claimed invention, but instead must be modified somehow to arrive at the claimed invention. However, the Examiner does not provide any explanation whatsoever of **what** modifications would be required or **why** the ordinary artisan would be motivated to make them. See paragraphs 107 and 51 of the FOA. Thus, as an initial point, the rejection fails to provide a *prima facie* case of obviousness because no motivation for the modifications (whatever they are) is supplied.

Regarding the results of the modifications (whatever they are), even if they were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Campbell fails to, *inter alia*, teach or suggest all the elements of claim 179. In particular, none of the applied references teaches the **transmission of discrete signals**

**that are organized into a processor instruction** at a receiver station and, moreover, where the organized processor instruction is effective to cause the **a portion of a locally generated image based on previously-stored user specific data** to be displayed with a **portion of a remotely transmitted video image**.

The Examiner is referred to the discussion in this section of claims 84 and 167 above for the reasoning as to why Campbell does not teach or suggest the claimed discrete signals and processor instructions. The Examiner is referred to the discussion in this section of claim 167 above for reasoning as to why Campbell does not teach or suggest control signals that cause such organizing to occur. The Examiner is referred to the discussion in this section of claims 84 and 93 as to why Campbell does not teach or suggest the generation of local images based on stored user specific data that, moreover, was stored prior to organizing the processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 179 be withdrawn.

Claims 181-182 depend upon independent claim 179. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, it follows that dependent claims 181-182 are patentable based on Campbell for at least the same reasons as for independent claim 179.

Moreover, dependent claim 182 further provides that outputted audio from the transmitter station that is output with the video presentation states a significance of information displayed in the video graphic presentation. This additional element is not disclosed or suggested by the applied references, and therefore, this rejection should be withdrawn.

Claim 180 has been proposed for cancellation by applicants. Accordingly, the rejection of that claim is rendered moot.



**8. 35 U.S.C. § 103 (a) Rejection Based on Oono et al. Jap. Pat. No. 55-028691.**

Paragraphs 52 & 53 reject claims 56-74 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Japanese published application no. 55-028691 listing Kenzou Oono et al. as inventors [hereinafter Oono][references to Oono refer to the English translation by FLS, Inc. provided by the Office and dated March 1997].

**a. Independent Claim 56 and Dependent Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on "remotely originated" data received from a remote data source and "locally supplied" data. The "remotely originated" data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed "simultaneously."

Specifically, claim 56 includes a step of processing remotely originated and locally supplied data at a video apparatus in order to generate a locally generated image.

Oono describes a television receiver with a programmable processor. Software or picture data may be superimposed on a video signal and transmitted to a home. A telephone modem is described for establishing a connection to a broadcasting station. The receiver includes a receiver, a data pickup circuit, a microcomputer, video RAM, a switch, a circuit in which the output of the video RAM and external video are superimposed. In one mode of operation, Oono describes data to be superimposed. In this mode data is stored in memory and written to the video RAM. The switch is set to accept input from a circuit in which the picture from the video RAM and the video signal of an external signal are superimposed.

Oono fails to show or suggest a step of processing remotely originated data and locally supplied data at a video apparatus in order to generate a locally generated image as set forth in proposed claim 56. The Examiner notes that Oono recites teletext images that are generated from received data transmitted from the teletext provider's remote station location. FOA § XII, ¶ 52.III.2), H&W 195. Although the received teletext is processed, no other data is processed to generate the image. Oono fails to suggest processing locally supplied data as set forth in proposed claim 56.

Applicants respectfully request that the rejection of claim 56 under 35 U.S.C. §103(a) as being unpatentable based on Oono be withdrawn.

Claims 57-74 and 89-91 depend upon independent claim 56. As discussed *supra*, Oono fails to disclose every element of claim 56 and thus, *ipso facto*, Oono fails to render dependent claims 57-74 and 89-91 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 57-74 and 89-91 be withdrawn for at least the above reasons.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Oono et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Oono et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Oono et al.

fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Oono et al.

**9. 35 U.S.C. § 103 (a) Rejection Based on Oono et al. in View of “A Public Broadcaster’s View of Teletext in the United States” by Gunn et al.**

Paragraphs 54-56 reject claims 56-182 under 35 U.S.C. § 103(a) as being unpatentable based on Oono in view of the publication “*A Public Broadcaster’s View of Teletext in the United States*” by Hartford Gunn and Gregory W. Harper [hereinafter Gunn].

**a. Independent Claim 56 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes a step of processing remotely originated and locally supplied data at a video apparatus in order to generate a locally generated image.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video

being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station.

Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 54 of the FOA, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. FOA § XII ¶ 54.III (H&W 198-99). The Examiner asserts that it would have been obvious to one of ordinary skill in the art to have used the software handling capabilities of the Oono system to download, execute, and display "program related" computer applications as described in Gunn. However, the Examiner provides no objective teaching in these reference that explains why the ordinary artisan would be motivated to make such a combination. Further, the Examiner provides no details regarding how these different references would be combined. Thus,

the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Gunn fails to provide any details of the operation of a system that downloads software related to a television program. In particular, Gunn fails to disclose that program related software would create an image to be displayed with television video. However, the Examiner relies on Gunn for this very feature. Gunn recognizes that software functions are accomplished by a home computer and are thus separate from the display of video at a television set. Gunn includes the conclusory statement that it may very well make sense to put the home computer into the television set. However, Gunn does not disclose how such a combination of computer and TV could be accomplished or what the result would produce. Neither Oono nor Gunn disclose downloading software which in turn would create image for display with television video. This combination of references as applied by the Examiner thus fails to show or suggest simultaneously displaying a locally generated image and an image received from a remote video source as set forth in proposed claim 56.

Furthermore, proposed claim 56 is amended to set forth that the locally generated image is generated by processing remotely originated data and locally supplied data. Oono does not show or suggest this claim element as addressed above in the discussion of the rejection based on Oono taken alone. Gunn is too conclusory to teach this limitation. Gunn merely provides the example that as a guest on "Wall Street Week" explains how to analyze a portfolio, the viewer is actually doing it at home with raw data and software supplied via teletext. Gunn does not disclose where the raw data is input or what form the output would take. Gunn simply fails to provide any details to allow one of ordinary skill in the art to develop a system in which both remotely originated data and locally supplied data are processed to generate a local image. Accordingly, Oono, even if

properly combined with Gunn, fails to show or suggest applicants' claimed step of processing remotely originated data and locally supplied data in order to generate a locally generated image.

Applicants respectfully request that the rejection of claim 56 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 57-74 and 89-91 depend upon independent claim 56. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 56 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 57-74 and 89-91 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 57-74 and 89-91 be withdrawn for at least the above reasons.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Oono et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Oono et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Oono et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Oono et al.

**b. Independent Claim 80 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 80 is a transmitter claim for an “origination transmitter station” (OTS) that transmits control signals and instruct signals to control operations at a downstream “intermediate transmitter station” (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

Specifically, claim 80 includes the step of transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of the video presentation and cause the locally generated portion of the video presentation to be displayed in conjunction with the video. Claim 80 includes the step of transmitting at least one control signal from the origination transmitter to the remote intermediate transmitter station. The control signal is effective at the remote intermediate transmitter station to control communication of at least one of the video and the instruct signal.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video

being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station.

Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA. The Examiner merely asserts that claim 80 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 80. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a receiver station causing a locally generated portion of video presentation to be displayed in conjunction with video transmitted from an origination transmitter as set forth in claim 80. As there is no discussion regarding claim 80 in the FOA, the Examiner provides no objective teaching in these reference that explains why



the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 80. In particular, Oono in view of Gunn fails to show or suggest the transmission of control signals that control operations at intermediate transmitter stations, such as to control ITS communication of video or instruct signals. The applied references also fail to show or suggest transmission of instruct signals through an intermediate transmission station that control operations at further downstream receiver stations, such as to cause the generation or output of a locally generated portion of a video presentation and display of the locally generated portion in conjunction with remotely transmitted video.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed, no software is executed to control the communication of video or other instructions at an intermediate station. Such downloaded software does not remotely suggest applicants' recited control signals that control operations at an intermediate transmission station.

Additionally, applicants' video presentation includes a locally generated portion that is generated or output by a receiver station based on an instruct signal. Communication of the instruct signal or video displayed in conjunction with the locally generated portion is controlled at an intermediate transmitter station. Neither Oono nor Gunn suggests transmission of instruct signals through an intermediate transmission station that control operations at further downstream receiver stations. Oono suggests that software is requested from a broadcast or CATV station and is thus transmitted

directly to the receiver station. Gunn includes no details regarding the transmission of any instructions.

Applicants respectfully request that the rejection of claim 80 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 81-83 and 92 depend upon independent claim 80. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 80 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 81-83 and 92 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 81-83 and 92 be withdrawn for at least the above reasons.

**c. Independent Claim 84 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 84 defines a method for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor signal by organizing information from the first discrete signal with information from a second discrete signal. The processor signal is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor signal.

In particular, claim 84 includes receiving a first discrete signal. This first discrete signal enables the receiver station to organize information in the first discrete signal with

information in a second discrete signal to provide a processor instruction. The processor instruction instructs the receiver station to deliver a locally generated image for display in conjunction with video. The locally generated image is based on user specific data stored at the receiver station prior to organizing the processor instruction. Claim 84 also includes the step of transferring and transmitting the first discrete signal.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 84 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 84. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a receiver station delivering a locally generated image for display in conjunction with transmitted video as set forth in claim 84. As there is no discussion regarding claim 84 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 84. In particular, Oono in view of Gunn fails to show or suggest the transmission of discrete signals that are organized at a receiver station into processor instructions that are then effective at the receiver station to deliver a locally generated image for display in conjunction with remotely transmitted video. The applied references also do not show or suggest the limitation added to proposed claim 84 that a locally generated image is based on user specific data stored at the receiver station prior to the organizing of the processor instruction.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at

the receiver. Accordingly, there is no suggestion that any instructions are organized from discrete signals as set forth by applicants' proposed claim 84.

Additionally, Oono in view of Gunn does not show or suggest a locally generated image that is based on user specific data stored at the receiver station prior to organizing a processor instruction. First, neither Oono nor Gunn suggest that any user specific data that forms the basis for a local image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the data is stored or is the basis of a locally generated image. Second, as neither Oono nor Gunn suggest organizing discrete signals into processor instructions, these references do not remotely suggest the claimed storing of user specific data prior to organizing a processor instruction.

Applicants respectfully request that the rejection of claim 84 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 85-88 depend upon independent claim 84. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 84 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 85-88 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 81-83 and 92 be withdrawn for at least the above reasons.

**d. Independent Claim 93 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the

receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

In particular, claim 93 includes the step of generating an image to replace only a portion of a video image by processing at least one user specific subscriber datum stored at the receiver station. Claim 93 includes the step of outputting a video presentation to a user, the video presentation containing, firstly, the video image and, secondly, the generated image to replace the portion of the video image. Claim 93 also includes the step of organizing information contained in a first discrete signal with information contained in a second discrete signal based on a control signal.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his

portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 93 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 93. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose the claimed step of outputting a video presentation containing, firstly, a video image and, secondly, a generated image to replace only a portion of the video image as set forth in claim 93. As there is no discussion regarding claim 93 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 93. In particular, Oono in view of Gunn fails to show or

suggest organizing discrete signals into processor instructions in response to which an image is generated. The applied references also do not show or suggest that the image is generated by processing user specific data stored at the receiver station prior to organizing the discrete signals.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion that any instructions are organized from discrete signals as set forth by applicants' proposed claim 93.

Additionally, Oono in view of Gunn does not show or suggest generating an image by processing user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, neither Oono nor Gunn suggest that any user specific data that is processed to generate a local image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is processed to generate an image. Second, as neither Oono nor Gunn suggest organizing discrete signals into processor instructions, these references do not remotely suggest that a user specific subscriber datum is stored prior to organizing discrete signals into a processor instruction.

Applicants respectfully request that the rejection of claim 93 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 93 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 94-109 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is



nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 94-109 be withdrawn for at least the above reasons.

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Oono et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Oono et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Oono et al.

**e. Independent Claim 110 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, claim 110 includes a step of receiving a first discrete signal containing information, wherein a first processor instruction comprises information

organized from the information contained in the first discrete signal and information contained in a second discrete signal. An additional processor instruction is received that is effective at the receiver station to generate and output only a portion of a video presentation. The portion is based on user specific data stored at the receiver station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 110 is rejected for the same reasons that were set for

claim 56. The Examiner fails to address the claim limitations of claim 110. As there is no discussion regarding claim 110 in the FOA, the Examiner has failed to determine the differences between the Oono and claim 110, failed to provide any objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn, and failed to demonstrate how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 110. In particular, Oono in view of Gunn fails to show or suggest the transmission of discrete signals which at a receiver station are organized into processor instructions effective to program the receiver station to respond to a subsequent processor instruction that in turn is effective to output a portion of a video presentation based on user specific data stored at the receiver station prior to organizing the discrete signals into processor instructions

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion that any instructions are organized from discrete signals as set forth by applicants' proposed claim 110.

Additionally, Oono in view of Gunn does not show or suggest outputting a portion of a video presentation based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, neither Oono nor Gunn suggest that any user specific data that forms the basis of a portion of a video

image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is processed to generate an image. Second, as neither Oono nor Gunn suggest organizing discrete signals into processor instructions, these references do not remotely suggest user specific data that is stored prior to organizing discrete signals into a processor instruction.

Applicants respectfully request that the rejection of claim 110 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 111-115 depend upon independent claim 110. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 110 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 111-115 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 111-115 be withdrawn for at least the above reasons.

**f. Independent Claim 116 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i)

the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 sets forth a receiver station that is adapted to display a locally generated image in conjunction with video in response to a processor instruction. The processor instruction is comprised of information contained in a first discrete signal and information contained in a second discrete signal. Claim 116 includes a step of transmitting such a first discrete signal at a receiver station. Claim 116 also include a step of transmitting a control signal which at a remote transmitter station operates to control the communication of the first discrete signal or the processor instruction.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 116 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 116. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a receiver station that is adapted to display a locally generated image in conjunction with video. As there is no discussion regarding claim 116 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 116. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that can be organized at an intermediate transmitter station or a receiver station into processor instructions. The applied references also do not show or suggest the recited control signal that controls communication at an intermediate transmission station, such as communication of such discrete signals or processor instructions.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory at the receiver station as received for use by a central processing unit. Accordingly, there is no suggestion that any instructions are organized from discrete signals at either a receiver station or an intermediate station as set forth by applicants' proposed claim 116.

Additionally, claim 116 sets forth transmitting a control signal from an origination station to a remote intermediate transmitter station. The control signal controls communication of the processor instruction or the discrete signals at the intermediate station based on where the discrete signals are organized. Neither Oono nor Gunn suggest transmission of control signals that control communication of processor instructions through an intermediate transmission station. Oono suggests that software is requested from a broadcast or CATV station and is thus transmitted directly to the receiver station. As Oono suggests no intermediate station, Oono suggests no control signal transmitted from an origination station to an intermediate transmitter station. Gunn includes no details regarding the transmission details of any intermediate station. Gunn thus includes no suggestion to transmit such control signals from an origination transmitter to a remote intermediate transmitter station.

Applicants respectfully request that the rejection of claim 116 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 117-122 depend upon independent claim 116. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 116 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 117-122 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants

respectfully request that this rejection of claims 117-122 be withdrawn for at least the above reasons.

**g. Independent Claim 123 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Specifically, proposed claim 123 sets forth receiving at least one instruct signal which is effective at a receiver station to generate locally and output a second image of a video presentation for delivery in conjunction with said first image, wherein the second image is based on user specific data stored at the receiver station. Claim 123 also sets forth receiving at least one first discrete signal and at least one control signal at a first transmitter station. The first discrete signal includes only partial information of an identifier. The control signal is operative to provide the identifier and designate a receiver station by organizing the partial information with information contained in a second discrete signal.



Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 123 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 123. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of

Oono fails to disclose a receiver station that generates and outputs a second image of a video presentation for delivery in conjunction with a first image as set forth in claim 123. As there is no discussion regarding claim 123 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 123. In particular, Oono in view of Gunn fails to show or suggest transmission of control signals and discrete signals to receiver stations, where the control signals are effective to cause the discrete signals to be organized into an identifier that is operative to render an instruct signal effective. The applied references also do not show or suggest an instruct signal that is effective to generate and output a second image that is based on user specific data stored at the receiver station prior to organizing the identifier.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. There is no suggestion that this software includes an identifier that is organized from discrete signals based on a received control signal. Neither Oono nor Gunn suggest that any identifier is organized from discrete signals. Nor do Oono nor Gunn suggest that any discrete signals are organized at a receiver station based on any received control signal. Thus, these references include no suggestion whatsoever to transmit a control signal and a discrete signal to a receiver station where discrete signal is organized into an identifier based on the control signal.

Additionally, Oono in view of Gunn does not show or suggest an image that is based on user specific data stored at the receiver station prior to organizing an identifier. First, neither Oono nor Gunn suggest that any user specific data that forms the basis for an image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is the basis of a locally generated image. Second, as neither Oono nor Gunn suggest organizing discrete signals into an identifier, these references do not remotely suggest the storing user specific data prior to organizing an identifier.

Applicants respectfully request that the rejection of claim 123 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn.

Claims 124-141 depend upon independent claim 123. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 123 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 124-141 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 124-141 be withdrawn for at least the above reasons.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Oono et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**h. Independent Claim 162 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 162 can be considered a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to render the code. Processing the code causes the receiver station to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station.

Specifically, claim 162 sets forth code that enables a receiver station to identify a locally generated image and output the local image in conjunction with a video image. The locally generated image is based on user specific data stored at the receiver station. Claim 162 includes the steps of receiving, transferring, and transmitting a first discrete signal, wherein the first discrete signal enables the receiver station to organize information contained in the first discrete signal with information contained in a second discrete signal.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station.

Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 162 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 162. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a receiver station that outputs a locally generated image in conjunction with a video image as set forth in claim 162. As there is no discussion regarding claim 162 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim

limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 162. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that are used to organize code at a receiver station that is effective to (a) identify a locally generated image that is based on user specific data stored prior to organization of the code and (b) output the locally generated image with a remotely transmitted video image.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion of any code that is organized from discrete signals as set forth by applicants' proposed claim 84.

Additionally, Oono in view of Gunn does not show or suggest a locally generated image that is based on user specific data stored at the receiver station prior to organizing the code. First, neither Oono nor Gunn suggest that any user specific data that forms the basis for a local image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is the basis of a locally generated image. Second, as neither Oono nor Gunn suggest organizing discrete signals into code, these references do not remotely suggest storing user specific data prior to organizing the code.

Applicants respectfully request that the rejection of claim 162 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn for at least the above reasons.

Claims 163-166 depend upon independent claim 162. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 162 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 163-166 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 163-166 be withdrawn for at least the above reasons.

**i. Independent Claim 167 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 167 includes the step of organizing information contained in a first discrete signal at the receiver station with information contained in a second discrete signal based on at least one control signal. Claim 167 also includes the step of displaying, at a video monitor, a second completed full-screen video graphic image, wherein the displayed second completed full-screen video graphic image contains a portion that is based on user specific data stored at the receiver station and only a portion

of a first completed full-screen video graphic image. The first completed full-screen video graphic image is received from a remote transmitter station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 167 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 167. Regarding claim 56, the Examiner acknowledges that output of the software data was not described



in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose the claimed step of displaying a second graphic image that contains a portion based on user specific data and a portion of a received first graphic image as set forth in claim 167. As there is no discussion regarding claim 167 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 167. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that are organized into processor instructions at the receiver station. The applied references also do not show or suggest that a portion of a second image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion that any processor instructions are organized from discrete signals as set forth by applicants' proposed claim 167.

Additionally, Oono in view of Gunn does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, neither Oono nor Gunn suggest that

any user specific data that forms the basis of a portion of an image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is processed to generate an image. Second, as neither Oono nor Gunn suggest organizing discrete signals into processor instructions, these references do not remotely suggest user specific data that is stored prior to organizing discrete signals into a processor instruction.

Applicants respectfully request that the rejection of claim 167 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn for at least the above reasons.

Claims 168-170 depend upon independent claim 167. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 167 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 168-170 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 168-170 be withdrawn for at least the above reasons.

Moreover, claim 168 further provides that the portion of the locally generated second image is **generated** in accordance with the processor instruction that was organized. This feature, the generation of a local image in accordance with a processor instruction that is organized from discrete signals transmitted from a transmitter station, is not disclosed or suggested by the applied references.

**j. Independent Claim 171 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station.

Specifically, claim 171 includes the steps of receiving, transferring, and transmitting one or more control signals that are operative at a receiver station to provide at least one processor instruction by causing the receiver station to organize partial information from a received first discrete signal with information in a second discrete signal. The processor instruction directs a portion of a second graphic image to a video monitor. The portion of the second video graphic is based on user specific data stored at the receiver station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the

teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 171 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 171. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a receiver station that displays a portion of a second graphic image that is based on user specific data in conjunction with a portion of a first graphic image as set forth in claim 171. As there is no discussion regarding claim 171 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 171. In particular, Oono in view of Gunn fails to show or suggest transmission of control signals and discrete signals, where the control signals are

effective to cause the discrete signals to be organized into a processor instruction that directs a portion of the second graphic image to a video monitor. The applied references also do not show or suggest a portion of a second image that is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion that of any processor instructions that are organized from discrete signals as set forth by applicants' proposed claim 171.

Additionally, Oono in view of Gunn does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing a processor instruction. First, neither Oono nor Gunn suggest that any user specific data that forms the basis for a portion of an image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is the basis of a locally generated image. Second, as neither Oono nor Gunn suggest organizing discrete signals into a processor instruction, these references do not remotely suggest the storing user specific data prior to organizing a processor instruction.

Applicants respectfully request that the rejection of claim 171 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn for at least the above reasons.

Claims 172-174 depend upon independent claim 171. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 171 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 172-174 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is

nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 172-174 be withdrawn for at least the above reasons.

**k. Independent Claim 175 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

Claim 175 is an OTS transmitter claim directed to controlling operations at downstream ITS and further downstream receiver stations. In claim 175, a first video graphic image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS. In claim 175, either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS to control the communication of (1) the processor instruction (if the ITS is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. Based on the assembled processor instruction, a portion of a second graphic image is displayed with a portion of a first graphics image, rendering a complete second graphic image.

Specifically, claim 175 includes a step of transmitting from an origination station transmitter to a remote intermediate transmitter station a signal. The signal contains at least one discrete signal that contains only a part of at least one processor instruction that instructs a receiver station to generate and output only a portion of a second completed full-screen video graphic image. The second completed full-screen video graphic image fills the entire surface area of a viewing screen when displayed at a video monitor and contains only a portion of a second completed full-screen video graphic image in conjunction with only a portion of said first completed full-screen video graphic image.

Claim 175 also includes a step of receiving, at said origination transmitter station, one or more control signals that operate at a remote intermediate transmitter station to control communication of either (i) the first completed full-screen video graphic image and the at least one discrete signal or (ii) the first completed full-screen video graphic image and at least one processor instruction

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 175 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 175. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose a second graphic image that contain a portion of a received first graphic image. As there is no discussion regarding claim 175 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 116. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that can be organized at an intermediate transmitter station or a receiver station into processor instructions. The applied references also do not show or suggest the recited control signal that controls communication at an intermediate transmission station, such as communication of graphic images and such discrete signals or processor instructions.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory at the receiver station as received for use by a central processing unit. Accordingly, there is no suggestion that any instructions are



organized from discrete signals at either a receiver station or an intermediate station as set forth by applicants' proposed claim 175.

Additionally, claim 175 sets forth transmitting a control signal from an origination station to a remote intermediate transmitter station. The control signal controls communication of the processor instruction or the discrete signals at the intermediate station based on where the discrete signals are organized. Neither Oono nor Gunn suggest transmission of control signals that control communication of processor instructions through an intermediate transmission station. Oono suggests that software is requested from a broadcast or CATV station and is thus transmitted directly to the receiver station. As Oono suggests no intermediate station, Oono suggests no control signal transmitted from an origination station to an intermediate transmitter station. Gunn includes no details regarding the transmission details of any intermediate station. Gunn thus includes no suggestion to transmit such control signals from an origination transmitter to a remote intermediate transmitter station.

Applicants respectfully request that the rejection of claim 175 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn for at least the above reasons.

Claim 176 depends upon independent claim 175. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 175 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 176 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 176 be withdrawn for at least the above reasons.

Moreover, dependent claim 176 further provides that the OTS transmits audio that describes information displayed in the presentation at the receiver station. This additional element is not disclosed or suggested by the applied references.

**I. Independent Claim 179 and Dependent Claims Thereto.**

Applicants note that Gunn includes no publication date and therefore it has not been established that Gunn is valid prior against the pending claims.

In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 179 includes a step of displaying a second completed full-screen video graphic image at a video monitor. The displayed second completed full-screen video graphic image contains a portion of a first graphic image based on a received series of graphic images and a portion of a locally generated second graphic image that is based on user specific data stored at the receiver station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. Received data may be stored in video RAM and then superimposed on video being received in the television signal. Oono also suggests the receiver station may make a request to transmit video or data from a broadcasting station or CATV station. Although no details of this request are provided, Oono does recite a modem connected to a telephone line for this purpose.

Gunn generally discusses potential benefits of teletext in U.S. public broadcasting. Gunn provides broad examples of possible systems using teletext in the U.S. However, no operational details are provided regarding any system. In one example, Gunn notes that as an investor watches "Wall Street Week", he may analyze his portfolio using raw data and software supplied via teletext. Gunn assumes that the teletext decoder will be connected to the home computer. Gunn also notes the possibility of putting the teletext decoder in the home computer and possibly the computer into the television set. Gunn provides no details regarding the operation of such a system.

The Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the combination of the separate references that is proposed. Second, this vague combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 56 of the FOA, the Examiner merely asserts that claim 179 is rejected for the same reasons that were set for claim 56. The Examiner fails to address the claim limitations of claim 179. Regarding claim 56, the Examiner acknowledges that output of the software data was not described in Oono as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source. Accordingly, the software of Oono fails to disclose the claimed step of displaying a second graphic image that contains a portion based on user specific data and a portion of a received first graphic image as set forth in claim 179. As there is no discussion regarding claim 179 in the FOA, the Examiner provides no objective teaching from these references that explains why the ordinary artisan would be motivated to combine Oono and Gunn or how these different references would be combined to teach the claim limitations. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination of Oono and Gunn were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Gunn fails show or suggest all of the claim limitations of proposed claim 179. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that are organized into processor instructions at the receiver station. The applied references also do not show or suggest that a portion of a second image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono and Gunn at best disclose downloading software to viewer stations where it is executed. Neither Oono nor Gunn provide any details regarding the contents of such software. There is no suggestion that the software is anything but a series of instructions that are stored in memory as received for use by a central processing unit at the receiver. Accordingly, there is no suggestion that any processor instructions are organized from discrete signals as set forth by applicants' proposed claim 179.

Additionally, Oono in view of Gunn does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, neither Oono nor Gunn suggest that any user specific data that forms the basis of a portion of an image is stored at the receiver station. Oono includes no suggestion of user specific data. Gunn recites analyzing a portfolio with raw data, but does not suggest that the raw data is stored or is processed to generate an image. Second, as neither Oono nor Gunn suggest organizing discrete signals into processor instructions, these references do not remotely suggest user specific data that is stored prior to organizing discrete signals into a processor instruction.

Applicants respectfully request that the rejection of claim 179 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Gunn be withdrawn for at least the above reasons.

Claims 180-182 depend upon independent claim 179. As discussed *supra*, Oono in view of Gunn fails to disclose every element of claim 179 and thus, *ipso facto*, Oono in view of Gunn fails to render dependent claims 180-182 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 180-182 be withdrawn for at least the above reasons.

Moreover, dependent claim 182 further provides that outputted audio from the transmitter station that is output with the video presentation states a significance of information displayed in the video graphic presentation. This additional element is not disclosed or suggested by the applied references, and therefore, this rejection should be withdrawn.

**10. 35 U.S.C. § 103 (a) Rejection based on Hutt et al.  
U.S. Pat. No. 3,961,137.**

Paragraphs 57 & 61 reject claims 56, 60-62 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Hutt et al.

**a. Independent Claim 56 and Dependent  
Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

receiving from said remote data source said remotely originated data to serve as a basis for displaying said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Hutt et al. generally discloses a basic teletext system transmitting digital teletext data in the vertical blanking interval (VBI). Fig. 4 shows a receiver station that receives a teletext/data signal. The viewer can use a display selector to display the video picture only, the picture and superimposed text, or the data only on a black screen with no video.

With respect to applicants' amended claim 56, Hutt et al. fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

receiving from said remote data source said remotely originated data to serve as a basis for displaying said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

The FOA characterizes Hutt et al. as having a request at the receiver station comprising either 1) the received header/control codes that are transmitted in the teletext data stream, or 2) the input by the user to choose the type of presentation output on the display (Col. 7 ll. 1-10). The header/control codes of Hutt et al. shown in Fig. 7 comprise:

-a run in period sufficient to synchronize a receiver at a reasonable signal to noise ratio (Col. 3 ll. 10-12);

-a unique start code that when received at the control logic (Fig 5) will store the start code and increment the decoded counter (not shown, but included in the control logic of Fig.5, Col. 7 ll. 63-68) by 1 which then points to the part of the data containing the line number;

-a data label that allows a strobe pulse generated by the BIT COUNTER to compare the received data with the selected data label and to check if the contents of DATA REGISTERS A and B complement each other. If so, the strobe pulse again is stored in the CONTROL LOGIC which in turn will increment the DECODE COUNTER by 1, pointing now to the part of the data containing the page number (Col. 8 ll. 12-22);

-a page number wherein a strobe pulse is again generated by the BIT COUNTER to compare the received data with the selected page number and to check if the contents of the two REGISTERS A and B complement each other. The strobe pulse again is stored in the CONTROL LOGIC which increments the DECODE COUNTER by 1, pointing now to the part of the data containing the strip and segment numbers (Col. 8 ll. 24-31);

-a strip number wherein immediately after each seventh rotation of a strip store, a strip number counter is incremented by one step through the range 1 to 22 and this is compared with the input strip address. When the strip and segment address of input data and currently displayed data are the same, the page store is switched to accept data from the segment store 16. As soon as the local segment address is incremented the page store switches back to accepting data from the strip store (Col. 9 ll. 19-27);

-a segment number so that as the strip store is rotated the seventh time, segment addresses 0 through 3 are generated internally and are compared with the input segment number which appears at the twelfth position in the line store (Col. 9 ll. 15-18);

-commands comprising a set of 8 bits, all zero, which represent unused time or may be used for various commands for controlling the receiver (Col. 3 ll. 12-17);

-a clear code or cleaning signal that acts as a cleaning signal if it has a value of unity (Col. 3 ll. 17-18); and

-an ASCII character data sequence comprising ten 8-bit words each of which defines an alpha-numeric character (Col. 3 ll. 18-20).

Each of these header/control codes are processed at the receiver station by a text decoding system (Figs. 4-6) that enables "information on a usefully large number of topics (e.g., general and regional weather forecasts, stock market information, currency exchange rates, sports results and theatre information) to be made available to the viewer." (Col. 3 ll. 35-40).

However, none of these header/control codes are communicated **from** the video apparatus **to** a remote data source, as required by applicants' claim 56. Hutt et al. specifically teaches that they are transmitted with the alpha-numeric characters **to** the receiver station to enable display on the display device (11). (Col. 6 ll. 31-34.)

Secondly, Hutt et al.'s user request at the receiver station whereby the user chooses the type of presentation output on the display does not teach or suggest the recited user request by claim 56.

Again, none of these user requested from the display selector as enumerated by the FOA are communicated from the video apparatus to a remote data source, as required by claim 56. Hutt et al. specifically teaches that the display selector signals are communicated to a display control device that controls a video switch (3). There is no teaching or suggestion in Hutt et al. that such signals or any other signals are communicated to a remote source, as claimed.

Additionally, Hutt fails to show processing remotely originated data and locally supplied data at said video apparatus in order to generate a locally generated image for simultaneous display with an image received from the remote video source. Hutt's teletext overlays are based on transmitted character codes. They are not based on



processing locally supplied and remotely originated data, as required by the claim language.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Hutt et al. fails to disclose every element of claim 56 and thus, *ipso facto*, Hutt et al. fails to teach or suggest dependent claims 57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Hutt et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Hutt et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Hutt et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Hutt et al.

**11. 35 U.S.C. § 103 (a) Rejection based on Hutt et al.  
in View of Betts, U.K. Pat. No. 1,556,366.**

Paragraphs 58-60 reject dependent claims 57-59, 64-74 & 89-91 under 35 U.S.C. § 103(a) as being unpatentable based on Hutt et al. in view of Betts.

The FOA states that Hutt et al. fails to teach a teletext decoding and display apparatus with a programmable computer which functioned to detect, store, and pass at least one processor instruction to a processor.

Betts discloses a combined television/data display system at a receiver station in which information characterizing data to be displayed is transmitted during line scan periods of a TV signal when video information is not being transmitted. There is character generation means for generating electric signals with respect to data characters to be displayed, and a central processing unit operable under control of a program for controlling the storage of information and the operation of the character generator means.

By altering the program of the central processor unit, a number of functions may be obtained. For example, the TV display may be used to display information received not from a television transmission, but fed in from a data modem, from an attached keyboard, a magnetic tape unit or other source. The computer program is stored in a read only memory and will perform only a specific function.

Color, flash and box signals are extracted from the data information and can be stored at CPU (13) for subsequent output to control box (20). Control box (20) controls the color of the data to be displayed, the flashing of certain characters and the production of a "box" for an overlay display of data superimposed on the normal TV picture.

A viewer can request a page number of data information to be displayed at control box (21) wherein the selected page information is transferred to RAM (15) under control of CPU (13). Information in the RAM (15) may be requested by CPU (13) and changed and re-stored in RAM (15) for subsequent display.

The FOA states that it would have been obvious to combine, or actually replace, the teletext decoder circuitry of Hutt et al. with the CPU (13) of Betts to "thereby simplify the circuitry of the known apparatus."

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or

showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this unlikely two-part combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Hutt et al. with Betts. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the FOA has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the FOA has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Hutt et al. in view of Betts, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by independent claim 56, and dependent claims 57-74, 76 & 89-91. The combination of Hutt and Betts still fails to teach or suggest applicants' invention of amended claim 56 since neither reference suggests originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation and communicating said at least said first request to a remote data source, processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

The FOA states that Betts "organizes" at processor (20) the "discrete" display information according to the discrete instruction information, and that the produced "box" is displayed in an overlay manner of data superimposed on the normal television picture (p. 2, ll. 44-47). However, the requested graphics generated at the receiver station are only different modes of displaying the received teletext (color, flashing or surrounded

in a box). There is no retrieval of data from a remote data source based on a request. Therefore, there can be no locally generated image from the remotely originated data and locally supplied data as claimed. Therefore, the combination of Betts with Hutt fails to teach or suggest independent claim 56.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 57, further comprising the step of programming said video apparatus to perform any one of said steps of originating, communicating, receiving, processing, and displaying.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 58, wherein said video apparatus includes a computer and said step of programming comprises the steps of: storing at least one processor instruction in said computer; detecting an instruct signal received at said video apparatus; and executing said at least one processor instruction in response to said instruct signal.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 59 further comprising the steps of: detecting said at least one processor instruction in a signal transmitted from one of said remote video source and said remote data source; and inputting said at least one processor instruction to said computer.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 64 further comprising the step of determining that said locally generated image is complete.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 65 wherein said video apparatus includes a computer, said method further comprising the steps of: organizing first information contained in a first discrete signal with second information contained in a second discrete signal in order to enable said video apparatus to process at least one processor instruction which comprises said first information and said second information; and causing said computer to respond to said at least one processor instruction.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 66 wherein said step of organizing is performed by a processor.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 67, further comprising the step of storing first programming in order to present a portion of said at least one of said locally generated image and said image received from said remote video source at a particular time or place.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 68, wherein said video output device displays said locally generated image based on said step of storing.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 69, wherein said video apparatus includes a computer which stores said remotely originated and said locally supplied data.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 70, wherein said video apparatus includes a computer which generates said locally generated image in response to at least one instruction, said method further comprising the step of inputting said first programming to said computer.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 71, further comprising the step of programming said computer to respond to said at least one instruction.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 72, wherein said step of programming comprises the steps of: receiving a programming transmission from said remote video source; and inputting at least a portion of said programming transmission to said computer.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 73, wherein said video apparatus receives encrypted video from said remote video source.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 74, wherein said video apparatus includes a local device which inputs selected information to said computer, said method further comprising the step of inputting said at least one instruction from said local device to said computer.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 89, wherein said video output device includes a viewing screen which displays a first image received from said remote programming source and said step of displaying comprises replacing less than all of said first image with said locally generated image.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 90, wherein said locally generated image is overlaid on said first image.

Hutt et al. in view of Betts fails to teach or suggest applicants' claim 91, wherein said video apparatus includes an audio receiver and ceases displaying said locally generated video image, said method further comprising the steps of: receiving, at said audio receiver, audio which describes information displayed in said video presentation; and, outputting said audio at said video apparatus before ceasing to display said locally generated video image.

Claims 57-59, 64-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Hutt et al. in view of Betts fails to disclose every element of claim 56 and thus, *ipso facto*, Hutt et al. in view of Betts fails to teach or suggest dependent claims 57-59, 64-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of dependent claims 57-59, 64-74 & 89-91 be withdrawn.

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Hutt et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Hutt et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Hutt et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Hutt et al.

**12. 35 U.S.C. § 103 (a) Rejection Based on Dufresne  
U.S. Pat. No. 4,623,920 in View of Campbell et al.**

Paragraphs 62-63 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on Dufresne in view of Campbell.

As an initial point, Dufresne is not available as a reference for claims that are entitled to 1981 priority (*see* response with respect to applicants' claim of priority under 35 U.S.C. § 120, *above*).

Nevertheless, the issue is moot because independent claim 75 has been cancelled. Applicants maintain their position that Dufresne was improperly applied and have cancelled claim 75 without waiver or admission.

Applicants would like to point out that dependent claim 76 has been amended to depend from claim 56. Dependent claims 77-79 have been cancelled.

**13. 35 U.S.C. § 103 (a) Rejection Based on  
"CBS/CCETT North American Broadcast  
Teletext Specification" and Appendix B of  
"Petition for Rulemaking."**

Paragraphs 64 and 65 reject claims 123-141 under 35 U.S.C. § 103(a) as being unpatentable based on "CBS/CCETT North American Broadcast Teletext Specification" and Appendix B of "Petition for Rulemaking."

**a. Independent Claim 123 and Dependent Claims Thereto.**

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Accordingly, claim 123 includes the elements of the transmitter station transmitting an “instruct signal, [a] first discrete signal, and [a] control signal.” The “control signal [is] operative [at a receiver station] to provide . . . [an] identifier . . . by organizing . . . partial information” of the identifier contained in the “first discrete signal” with “information contained in a second discrete signal.” The identifier operates at the receiver station to “designate[] . . . [the] second image . . . and . . . cause . . . [the] instruct signal to be effective.” The “instruct signal . . . generate[s] and output[s] [the locally generated] second image . . . with [the remotely transmitted] first image.” The locally generated second image is based on “user specific data stored at . . . [the] . . . receiver station[] prior to [the] organizing of [the] identifier.”

In paragraph 64, the Examiner has rejected claim 123 as unpatentable under § 103(a) based on “CBS/CCETT North American Broadcast Teletext Specification” (“CBS/CCETT”) and Appendix B of “Petition for Rulemaking” (“FCC Petition”).



CBS/CCETT discloses the extended Antiope teletext system where pages of teletext are transmitted in the VBI to decoders. Program-related “captioning” pages may be transmitted with the TV program and superimposed over the program. Unlike normal teletext messages where the user selects each page individually, in captioning the user must first select captioning, i.e., a “classification” of captions and a “level” (1-9). The decoder then stores captions based on the user selections. A control packet may then be sent with a reveal bit to cause a particular caption-type to be displayed.

The FCC Petition describes a similar captioning feature, which is referred to as “Mode 2 Captioning.” Collectively, CBS/CCETT and the FCC Petition can be referred to as the “Mode 2 Captioning” references.

With respect to applicants’ claim 123, the Mode 2 Captioning references fail to, *inter alia*, teach or suggest all of the claimed elements.

In particular, the Mode 2 Captioning references fail to teach or disclose the headend transmission of control signals and discrete signals to receiver stations, where **the control signals are effective to cause information from discrete signals to be organized into an identifier that is necessary for a transmitted instruct signal to be effective.** Nor does Mode 2 Captioning teach the transmission of such a instruct signal for producing a **locally generated second image based on previously-stored user specific data** for display with a remotely-transmitted first image.

First, teletext systems, such as that employed in Mode 2 Captioning, transmit header-type data allowing selection of teletext (e.g., pages) and control packets for causing selected teletext to be “revealed.” Neither this header-type data or these control packets operate whatsoever to cause partial identifiers in discrete signals to be organized to allow separately transmitted instruct signals to be effective. Therefore, the applied references fail to disclose or suggest the recited control signal.

The Examiner’s assertion in paragraph 64 that the header-type data is the recited control signal and the teletext packets are the recited discrete signals is incorrect. In the

claim, the control signal causes the discrete signals to be organized to render an identifier needed for the instruct signal. In the applied references, the header-type data simply is used to store the appropriate teletext. No identifier is organized as a result.

In a related manner, the Mode 2 Captioning does not teach the transmission of partial identifiers from the headend that are “assembled” in order to be effective. Instead, each of the Mode 2 teletext packets is self-standing insofar any identification information contained in a teletext packet header is complete. Applicants’ approach, where identifier information is sent in pieces to be assembled up, is not even remotely suggested by Mode 2 Captioning.

Also, like all teletext references, the Mode 2 Captioning does not disclose or suggest the claimed locally-generated image content based on user specific data. Mode 2 teletext overlays are not locally-generated image content as per the claim because in Mode 2, once the teletext packets are selected for storage, the associated image is fully determined. In applicant’s approach, previously-stored user specific data must be processed in order to prepare the local image. This approach is not even suggested by the broadcast-paradigm approach of Mode 2 Captioning, wherein the broadcast teletext content fully defines the images to be displayed at the receiver station.

Moreover, the claim provides that this user specific data is stored prior to organizing the identifier. Because the recited organization is not taught by Mode 2 Captioning, it follows that Mode 2 Captioning also fails to teach or fairly suggest the recited user specific data that is stored prior to organizing the identifier necessary to create the local image.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 123 be withdrawn.

Claims 124-127, 129, and 140-141 depend upon independent claim 123. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Accordingly, it follows that dependent claims 124-127, 129, and 140-141 are patentable over the Mode 2 Captioning references for at least the reasons set forth above for independent claim 123.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Mode 2 Captioning includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

Applicants have proposed canceling claim 128 and claims 130-139, thereby rendering the rejection of those claims moot.

**14. 35 U.S.C. § 103 (a) Rejection Based on “BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.”**

Paragraphs 66 and 67 reject claims 123-141 under 35 U.S.C. § 103(a) as being unpatentable based on “BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.”

**a. Independent Claim 123 and Dependent Claims Thereto.**

Independent claim 123 is summarized above (*see* the rejection of claim 123 based on Mode 2 Captioning above).

Pertinent elements from claim 123 are provided above (*see* the rejection of claim 123 based on Mode 2 Captioning above).

In paragraph 66, the Examiner has rejected claim 123 as unpatentable under § 103(a) based on “BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext” (“BS-14”).

For purposes of this analysis, the BS-14 reference is similar to the Mode 2 Captioning discussed above. In the BS-14 reference, user terminals equipped with teletext decoders interpret/display selected data transmitted in the VBI of television signals. The data is transmitted as data packets having a 28 byte data block. The data block includes a control data header and presentation data (teletext-type data).

“Complementary classification” data may be transmitted, including a “boxed message” bit b8=1 of byte Y1<sub>3</sub> (message to be displayed over program as a boxed message) and “delayed message” bit b6=1 of byte Y1<sub>3</sub> (display of message delayed until “reveal” message is sent or the user manually retrieves message). *See* pages 19-20.

As an initial point, the Examiner’s rejection in paragraph 66 fails to provide any specific reasoning as to how the BS-14 reference teaches any of the specifically recited elements of claim 123. For example, there is no explanation of what in BS-14 teaches the recited control signal (for organizing discrete signals to derive an identifier) or the recited discrete signals (used to carry partial information of an identifier), just to provide two examples. It is well-established in the law that in order to establish a *prima facie* case of obviousness, the Examiner has the burden of demonstrating that the applied reference must teach or suggest **all of the claim recitations**. *See* MPEP 706.02(j). If the examiner fails to shoulder this burden and simply ignores claim recitations (as is the case here), applicants can not determine if there is an absence of necessary motivation for proposed modifications/combinations or if there has been improper “hindsight reconstruction.” Therefore, at the outset, applicants request that the rejection based on BS-14 be withdrawn purely on the basis that the Examiner has failed to discharge his obligation to identify how the reference teaches all of the recited claim elements.

Upon considering the BS-14 reference against the claim recitations, it is evident that this reference fails to, *inter alia*, teach or suggest all the elements of claim 123. In particular, the BS-14 reference fails to teach or disclose the headend transmission of control signals and discrete signals to receiver stations, where the **control signals are**

**effective to cause information from discrete signals to be organized into an identifier that is necessary for a transmitted instruct signal to be effective.** Nor does the BS-14 reference teach the transmission of such a instruct signal for producing a **locally generated second image based on previously-stored user specific data** for display with a remotely-transmitted first image.

Turning to the specifics of the reference, BS-14 may use header-type data for purposes of selecting teletext, such as the packet address data of BS-14. Also, control-type data may be employed, such as the BS-14 classification bytes for causing selected teletext to be “revealed” or for causing selected teletext to be presented as a “boxed caption” overlay. However, neither this header-type data or this control-type data operates whatsoever to cause partial identifiers in discrete signals to be organized to allow separately transmitted instruct signals to be effective. The Examiner is referred to the discussion above for Mode 2 Captioning above. Therefore, the applied references fail to disclose or suggest the recited control signal.

As with the Mode 2 Captioning discussed above, BS-14 also does not teach the transmission of partial identifiers from the headend that are “assembled” to be effective. The Examiner is referred to the discussion above for Mode 2 Captioning above.

Finally, like the Mode 2 Captioning, BS-14 does not disclose or suggest the claimed locally-generated image content based on user specific data. BS-14 overlays (e.g., boxed overlays) are not locally-generated image content per the claim because their image content is fully determined by the teletext transmission, as explained previously, and is not based on processing previously stored user specific data. Moreover, as discussed above for Mode 2 Captioning, BS-14 does not teach such locally-generated image content based on user specific data that is stored prior to organizing an identifier.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 123 be withdrawn.

Claims 124-127, 129, and 140-141 depend upon independent claim 123. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Accordingly, it follows that dependent claims 124-127, 129, and 140-141 are patentable based on the BS-14 reference for at least the reasons set forth above for independent claim 123.

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, BS-14 Issue-I includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

Applicants have proposed canceling claim 128 and claims 130-139, thereby rendering the rejection of those claims moot.

**15. 35 U.S.C. § 103 (a) Rejection Based on  
“CBS/CCETT North American Broadcast  
Teletext Specification,” Appendix B of “Petition  
for Rulemaking,” BS-14 Issue-I, Provisional  
Broadcast Specification for Television Broadcast  
Videotext, Further in View of Betts.**

Paragraphs 68 and 69 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on “CBS/CCETT North American Broadcast Teletext Specification” (“CBS/CCETT”), and/or Appendix B of “Petition for Rulemaking” (“FCC Petition”) and/or BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext (“BS-14”), further in view of Betts, GB Pub. 1,556,366 (“Betts”).

Applicants have proposed to cancel claims 75 and dependent thereon claims 77-79. Therefore this rejection is rendered moot in view of the cancellation.

Applicants would like to point out that dependent claim 76 has been amended to depend from claim 56.

**16. 35 U.S.C. § 103 (a) Rejection Based on Editor & Publisher, August 1981 Article, "Landmark Forms Cable Weather News Network," in View of CBS/CCETT North American Broadcast Teletext Specification, Appendix B of "Petition for Rulemaking," and BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext.**

Paragraphs 70 and 71 reject claims 75-79 under 35 U.S.C. § 103(a) as being unpatentable based on Editor & Publisher, August 1981 article, "Landmark Forms Cable Weather News Network," ("Landmark") in view of CBS/CCETT North American Broadcast Teletext Specification ("CBS/CCETT"), Appendix B of "Petition for Rulemaking" ("FCC Petition") and BS-14 Issue-I, Provisional Broadcast Specification for Television Broadcast Videotext ("BS-14").

Applicants have cancelled claims 75 and dependent thereon claims 77-79. Therefore this rejection is rendered moot in view of the cancellation.

Applicants would like to point out that dependent claim 76 has been amended to depend from claim 56.

**17. 35 U.S.C. § 103 (a) Rejection based on VSA Publication, "Systems/NABTS NAPLPS" And/Or "Teletext Signal Generation Equipment and Systems" by Mothersole in View of Germany, U.K. Pat. No. 959,274.**

Paragraphs 72 & 73 reject claims 80-83 & 92 under 35 U.S.C. § 103(a) as being unpatentable based on VSA publication, "Systems/NABTS NAPLPS" and/or Mothersole in view of Germany.

As an initial matter, applicants traverse the rejection because the Examiner has not demonstrated that the undated VSA publication, "Systems/NABTS NAPLPS" reference is prior art against the rejected claims, each of which is entitled to priority to

the 1981 specification. In short, applicants assert that the rejection of the claims based on VSA publication, “Systems/NABTS NAPLPS” should be withdrawn until and unless the Examiner demonstrates that VSA publication, “Systems/NABTS NAPLPS” is effective prior art. Nevertheless, without admitting or conceding that the cited VSA publication, “Systems/NABTS NAPLPS” reference is available, applicants will, *arguendo*, respond to the merits of the rejection.

**a. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80 is a transmitter claim for an “origination transmitter station” (OTS) that transmits control signals and instruct signals to control operations at a downstream “intermediate transmitter station” (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

The Examiner’s three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the FOA has made no demonstration or showing of the required **motivation** to make the implausible combination of three separate references that is proposed. Second, this unlikely three-part combination of references **still fails to teach all of the elements recited by the claim**.

Regarding motivation for the combination, the FOA combines VSA and Mothersole, and the FOA further modifies that combination with Germany. However, the FOA fails to provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the FOA has made no demonstration whatsoever of



motivation in the references themselves or in the art to justify the result (whatever it is). Thus, the FOA has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because VSA and Mothersole, and further in view of Germany, fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 80.

Specifically, claim 80 includes the element of:

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

VSA discloses a teletext system whereby video and teletext are transmitted from an origination station to an intermediate transmitter station. The intermediate transmitter station has the capacity to insert local broadcasts, commercials and locally generated teletext for subsequent transmission to the receiver stations. (See Fig. labeled "Teletext: Typical Station Configuration.")

Mothersole discloses a teletext signal generation system whereby local television stations can use a teletext service available from a major (national) network and insert their own local pages (of teletext). (Page 348, 2.6 Teletext Networking.)

The FOA takes Official Notice that reception of teletext in both of the above references at a receiver station and the subsequent generation and presentation of characters anticipates the generation and output of a local portion of a video presentation.

Secondly, the FOA states that the "page numbers" in teletext transmissions in the above references are sufficient to constitute applicants' control signals, and these "page

numbers” when identified at the local data bridge/insertion point then constitute applicants’ instructions. Applicants respectfully traverse the FOAs’ interpretation of applicants’ claim language in this manner since the same element in the references (page numbers) is used to read on two distinct elements in the claim language (control and instruct signals).

Germany discloses a cueing system for television that facilitates the insertion of local announcements, regional broadcasts, alternative advertisements, and the like into different (television) programs. The cueing signals are transmitted in the frame suppression period of the television signal and are received and detected by tuned circuits coupled to an appropriate relay or control device that automatically carries out the desired operation on receipt of the correct cue signal. The application of the invention applies to television networks needing to insert material into national broadcasts for subsequent transmission to ultimate receiver stations to control any desired device, for example control the switching on of a domestic appliance at a given time, or else controlling a mechanism in prepayment television systems where a viewer inserts a coin into a meter or the like to render his receiver operative for a given time.

The FOA states that Germany discloses a cueing signal that control the routing of network programming through the local broadcast station. Applicants contend that Germany fails to teach cueing signals controlling the routing of network programming but only teaches cue signals that controls a device at an intermediate transmitter station to insert additional programming into the transmission of network programming or controlling a device at a receiver station.

With respect to applicants’ amended claim 80, VSA and/or Mothersole in view of Germany fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,:

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least

one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

First, with respect to the FOA's interpretation of VSA and Mothersole teaching a page number reading on applicants' control signal, there is no teaching in either reference that the teletext page number controls the communication of the broadcast video or the teletext page number itself (since the FOA additionally equated applicants' instruct signal with the page number, too). VSA and Mothersole fail to disclose the page number of the teletext in the network programming taking any effect at any receiver/transmission station other than identifying the teletext data it is transmitted therewith.

Finally, with respect to the FOA's interpretation of Germany's cue signals controlling the "routing of network programming through the local broadcast station," Germany only teaches that the receipt of cue signals cause devices at the local transmission station, not a receiver station, to insert local material into/over the network broadcast for transmission to receiver stations. Since Germany fails to teach or suggest that the cue signals cause the communication of network programming (i.e., applicants' video), or the teletext (i.e., applicants' instruct signal) transmitted with the network programming, thus, there is no teaching or suggestion for transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 80 be withdrawn.

Claims 81-83 & 92 depend upon independent claim 80. As discussed *supra*, VSA and/or Mothersole in view of Germany fails to disclose every element of claim 80 and

thus, *ipso facto*, VSA and/or Mothersole in view of Germany fails to teach or suggest dependent claims 81-83 & 92, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**18. 35 U.S.C. § 103 (a) Rejection Based on  
“Telesoftware-Value Added Teletext” by Hedger  
et al. in View of Gunn et al.**

Paragraphs 74-84 reject claims 84-88, 93-115 and 142-156 under 35 U.S.C. § 103(a) based on Hedger, et al. (Hedger) in view of Gunn, et al. (Gunn).

As an initial matter, applicants traverse the rejection because the Examiner has not demonstrated that the undated Gunn reference is prior art against the rejected claims, each of which is entitled to priority to the 1981 specification. In short, applicants assert that the rejection of the claims based on Gunn should be withdrawn until and unless the Examiner demonstrates that Gunn is effective prior art. Nevertheless, without admitting or conceding that the cited Gunn reference is available, applicants will, *arguendo*, respond to the merits of the rejection.

**a. Independent Claim 84 and Dependent  
Claims Thereto.**

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user

specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Accordingly, claim 84 includes the elements of “transmitting [the remotely-transmitted] video and [a] first discrete signal to [a] receiver station,” whereby the “first discrete signal is operative to provide [a] processor instruction . . . by enabling [the] receiver station to organize information . . . in [the] first discrete signal with information . . . in a second . . . discrete signal[,],” whereby the “processor instruction instructs [the] receiver station to deliver a locally generated image for display in conjunction with [the remotely-transmitted] video.” The locally generated image is “based on user specific data stored at [the] receiver station prior to [the] organizing of [the] processor instruction.”

In paragraph 74, the Examiner has rejected claim 84 as unpatentable based on the combination of Hedger and Gunn under § 103(a).

Hedger discloses a way to convert conventional teletext receivers into user-friendly quasi-microcomputers by adding a microprocessor and a memory to the teletext receiver. The microprocessor (using a preprogrammed “resident control program”) controls the teletext decoder to receive computer programs (Telesoftware [TS]) that are transmitted as regular teletext pages and then run on the microprocessor. The microprocessor (using the executing TS) may also control the teletext decoder to receive data from the teletext transmission to be processed by the computer program. One application is to use the Telesoftware for information manipulation of conventional teletext data, such as where the user inputs his stock market portfolio data and the program automatically locates the corresponding stock data in the teletext transmission to compute the rise/fall of the user’s portfolio. Hedger offers no details on the implementation of this example or what kind of result is presented for output.

The Gunn reference, which explores how teletext might be implemented in the United States, proposes a mix of general information for the viewer and program-related

information. Gunn proposes three levels of U.S. teletext: Level 1 (general data continuously retransmitted, such as program guide and news), Level 2 (program-related data that changes from program to program), and Level 3 (quasi-interactive pages transmitted only at certain times). In Level 3, a program could present questions and, depending on the answer input by the user, one of the Level 3 pages could be selected/presented. An example offered for the Level 3 teletext would be to allow a user to be verbally instructed by a guest on the Wall Street Week program on how to analyze the user's portfolio using telesoftware and data supplied via teletext. Gunn offers no details on this example, such as how the analysis is carried out or what kind of result is presented.

With respect to applicants' claim 84, Hedger and Gunn, alone or in combination, fail to, *inter alia*, teach or suggest all elements of the claimed invention.

In particular, the applied references fail to teach or suggest the headend transmission of **discrete signals** that are organized at a receiver station into **processor instructions** that are then effective at the receiver station to deliver a **locally generated image based on previously-stored user specific data in combination** with a **remotely-transmitted image**.

First, Hedger and Gunn, alone or in combination, fail to teach or fairly suggest the transmission of discrete signals that are organized at a receiver station into processor instructions. Hedger and Gunn teach that Telesoftware can be transmitted as teletext-type data. Beyond that, Hedger and Gunn provide no teaching or explanation pertaining to the above feature of claim 84. Claim 84 provides that discrete signals carrying partial information of processor instructions are transmitted and then "organized" into processor instructions at the receiver station. This permits, for example, the discrete signals to be transmitted in varying locations or times, while still permitting them to be "organized" into complete instructions. This aspect of the invention can provide both flexibility and security in the transmission of instructions.

In contrast, every indication of Hedger and Gunn is that the Telesoftware is transmitted as teletext in completely serial fashion (one packet after another), in the same transmission channel (e.g., in same line of the VBI), and in complete signal units. In other words, this Telesoftware is simply detected, buffered and stored before execution. No organizing step as per the claimed invention is employed or suggested. Therefore, the cited references, alone or in combination, fail to disclose the recited transmission of discrete signals that are organized up into processor instructions.

In paragraph 74, the Examiner makes three arguments in asserting the claimed organizing of discrete signals into processor instructions is shown by Hedger:

1. The “first discrete signal” is the Telesoftware teletext and the “second discrete” signal is the associated teletext page headers/numbers.

However, this assertion fails because the Telesoftware teletext and any page headers/numbers are not used to organize information of partial instructions into a complete processor instruction. In fact, the Examiner makes no showing whatsoever as to how such page headers/numbers would be used in a Teletext context. Applicants submit that the ordinary artisan will readily recognize that Telesoftware teletext and page headers/numbers are not used to assemble a processor instruction.

2. The “first discrete signal” is captured teletext pages for the Telesoftware program and the “second discrete signal” is captured teletext pages for information manipulated by the running Telesoftware program.

However, this assertion fails because the captured Telesoftware program and any captured information are not used to organize information of partial instructions into a complete processor instruction. The captured program simply processes data to be processed. The Examiner makes no showing of how the Telesoftware program and any captured data are “organized” into a complete processor instruction. Applicants submit that the ordinary artisan will readily recognize that a Telesoftware program and captured teletext are not used to assemble a processor instruction.

3. The “first discrete signal” is the first teletext packet of a portion of the Telesoftware program and the “second discrete signal” is a second teletext packet of a second portion of the Telesoftware program.

This assertion fails because there is no showing that such a hypothetical first teletext packet and a second teletext packet constitute **partial information of a processor instruction** that are then “organized” into a **complete processor instruction**. The Examiner makes no specific showing of these claimed features, and Hedger includes no teaching or suggestion that two such teletext packets comprising partial information of an instruction are “organized” into a complete, effective instruction.

Additionally, Hedger and Gunn, alone or in combination, fail to teach or suggest the delivery of a **locally-generated image based on user specific data in combination** with a **remotely-transmitted image**. Hedger simply teaches that Telesoftware could be used to manipulate captured conventional teletext, such as to compute a portfolio change. Hedger makes no suggestion of creating a locally-generated image to be presented in combination with a remotely-transmitted image.

Similarly, the undated Gunn reference suggests that a user watching Wall Street Week could be instructed by a guest on that program how to analyze his portfolio using telesoftware and data supplied via teletext. Gunn does not disclose or suggest that a locally-generated image based upon such analysis is presented in combination with the remotely-transmitted image (Wall Street Week). In fact, Gunn teaches away from this approach because the analysis is done on a home computer separate from the television. *See Gunn, P. 5.*

Because it makes no suggestion of a locally-generated image being presented in combination with a remotely-transmitted image, Gunn fails to remove the deficiencies in Hedger in this regard.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 84 be withdrawn.



Claims 85-87 depend upon independent claim 84. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). It follows that dependent claims 85-87 are patentable over the applied art for at least the same reasons as set forth for independent claim 84 above.

Claim 88 is proposed for cancellation by applicants. Accordingly, the rejection of claim 88 is moot.

**b. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Accordingly, claim 93 includes the elements of “receiving,” “detecting,” and “passing” a “first discrete signal to [a] processor,” “organizing . . . [the] first discrete signal . . . with . . . a second discrete signal” to produce a “processor instruction,” whereby the processor instruction is operative to cause “generat[ion of] an image to replace . . . a portion of [the first] video image by processing . . . user specific subscriber dat[a] stored at [the] receiver station prior to . . . organizing” so as to output a presentation of “firstly, [the first] video image, and secondly, [the locally] generated image to replace . . . [a] portion of [the first] video image.”

In paragraph 76, the Examiner has rejected claim 93 as unpatentable based on the combination of Hedger and Gunn under § 103(a).

The Hedger and Gunn references are summarized above (*see* the rejection of claim 84 above).

With respect to applicants' claim 93, Hedger and Gunn fail, *inter alia*, teach or suggest all of the claim elements.

In particular, the applied references fail to teach the headend transmission of **discrete signals** that are organized at a receiver station into **processor instructions**. Moreover, these references fail to teach or suggest the organization of such processor instructions at a receiver station that are then effective at the receiver station to create a **locally generated image** based on processing **previously-stored subscriber data** to replace a portion of a **first image** so as to render a **presentation sequence** of the first image and then the portion-modified first image.

First, the Examiner is referred to the analysis of claim 84 in this section above, where applicants demonstrate that Hedger and Gunn fail to teach or suggest the transmission of discrete signals, containing partial information of a processor instruction, that are organized into a complete processor instruction at a receiver station.

Second, neither Hedger nor Gunn teaches or suggests the claim feature of a **locally-generated image** to replace a portion of a **first image** so as to render a **presentation sequence** of the first image and then the portion-modified first image. In fact, as discussed above for claim 84, neither reference teaches the generation of a locally-generated image for presentation with another image, much less one in which the locally-generated image replaces a portion of the other image in a sequential presentation.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious.

*In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Therefore, it follows that claims 94-109 are patentable over the cited art for at least the same reasons as set forth for claim 93.

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Hedger et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Hedger et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Hedger et al.

**c. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Accordingly, claim 110 includes the elements of “receiving at [a] transmitter station . . . a first discrete signal . . . wherein . . . a first . . . processor instruction[] comprises information organized from . . . [the] first discrete signal and . . . a second discrete signal,” where the processor instruction is “effective to program [the] receiver

station[] to be able to respond to an additional processor instruction . . . subsequently received . . . [that is] effective . . . to output . . . a portion of [a] video presentation . . . based on user specific data stored at [the] . . . receiver station[] prior to [the] organizing of [the] first processor instruction;" and "transmitting . . . [the] first discrete signal" and "transmitting . . . [the] additional processor instruction."

In paragraph 78, the Examiner has rejected claim 110 as unpatentable based on Hedger and Gunn under § 103(a).

Hedger and Gunn have already been summarized in this section (*see* the rejection of claim 84 above).

With respect to applicants' claim 110, Hedger and Gunn fail to, *inter alia*, teach or suggest all of the claimed elements.

In particular, Hedger and Gunn fail to teach the headend transmission of **discrete signals** which at a receiver station are organized into **processor instructions** effective to program the receiver station to respond to a separate, subsequent processor instruction effective to **output** a portion of a video presentation based on **previously-stored user specific data**.

First, Hedger and Gunn fail to teach or suggest the organizing of discrete signals, containing partial information of a processor instruction, into a processor instruction effective at a receiver station. The Examiner is referred to the analysis in this section addressing claim 93, above.

Second, Hedger and Gunn fail to teach the organization of a first processor instruction that programs a receiver station to respond to a separate, subsequently transmitted second processor instruction for outputting a video presentation. The claimed approach is not remotely contemplated by the Hedger and Gunn references. Even assuming, *arguendo*, that the telesoftware of the applied references constitutes the recited first processor instruction, such telesoftware does not program the receiver station to respond to subsequently transmitted processor instructions to output a video presentation.

To the extent the Examiner argues that subsequently transmitted teletext constitutes the recited second processor instruction, the Examiner is referred to the previous explanation as to why transmitted teletext character codes do not constitute processor instructions.

Finally, neither reference teaches processor instructions effective to output only a portion of a video presentation. Hedger teaches the use of Telesoftware to manipulate captured teletext data. Hedger does not teach outputting a video presentation, partial or otherwise. Gunn teaches the use of Telesoftware to manipulate captured teletext data based on instructions from a guest on the broadcast Wall Street Week. Gunn does not teach or suggest using this manipulation to output a video presentation, partial or otherwise.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 110 be withdrawn.

Claims 111-114 depend upon independent claim 110. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). It follows that dependent claims 111-114 are patentable over the cited art for at least the same reasons as set forth above for claim 110.

**19. 35 U.S.C. § 103 (a) Rejection based on Diederich  
German Pat. No. 2,356,969.**

Paragraphs 85 & 86 reject claims 157-161 under 35 U.S.C. § 103(a) based on Diederich.

Applicants have cancelled claims 157 and its dependent claims thereto, and therefore this rejection is rendered moot in view of the cancellation.

**20. 35 U.S.C. § 103 (a) Rejection based on  
Zaboklicki German. Pat. Appl. No. 2,904,981.**

Paragraphs 87-91 reject claims 75-79, 93-109 & 162-166 under 35 U.S.C. § 103(a) based on Zaboklicki, DE 2,904,981.

**a. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Specifically, claim 93 includes elements of:

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least one first discrete signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal into a processor instruction; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

As an initial matter, applicants submits that the translation of Zaboklicki provided by the PTO is defective. Applicants submit herewith a certified translation included in Appendix B.

To the extent that it can be understood, Zaboklicki relates to a method for transmitting television signals, particularly to implement quasi-interactive television

viewing, which makes possible the reception of specially programmed television broadcasts.

The object of the invention is to create a method and a system that permit mass reception of interactive television broadcasts in which the television viewers can answer:

- 1) with "yes" or "no" or
- 2) a selection from a number of predefined alternatives
- 3) and can add individual supplements, explanations or other information corresponding to these answers.

More specifically, Zaboklicki claims a method for transmitting television signals in which a broadcast is transmitted at least partly in digital form, characterized in that a local central processor switches the data selector circuits for parts of the broadcast as a result of:

- 1) at least two consecutive answers by the television viewer and
- 2) due to the centrally transmitted digital processing program.

To achieve the desired invention, special broadcasts are prepared before transmission involving a significant amount of labor,

- 1) which have excess data for branching,
- 2) together with a digital processing program for the individual data fragments that are provided in the broadcast.

A local central processor at a receiver station is provided in the private television receiver, which switches the data selector systems based on

- 1) the television viewer's answer and
- 2) based on the centrally transmitted digital processing program for the broadcast segments (fragments).

*Broadcasts for Large Viewer Group Application*

A) *Transmission*

Broadcasts are provided with additional information in the form of additional audio signals which are transmitted analogously to the known signals of foreign language translations on audio channels or radio channels, which are provided in addition to the video channel.

*B) Receiver*

On the receiver side, according to the invention, the separate variants of the additional information are transmitted in the form of acoustic or audio signals in the television receiver in the infrared band to the individual infrared receivers, which are arranged in the known infrared transmitters for remote control of the television receivers. In these transmitters, the keypad is used in addition in order to enter the television viewer's answers. The central processor, which is embodied, for instance, as an integrated microprocessor having the function of a remote control signal encoder, injects at certain time intervals the information that corresponds to the respective television viewer based on the digital processing program. This information is again forwarded in the infrared band to the infrared receiver arranged next to the ear phones.

*Broadcasts for Small Viewer Group Application*

*A) Transmission*

Broadcasts for a smaller viewer group, such as educational and popular science broadcasts, are provided with additional information in the form of both audio signals and video signals.

*B) Receiver*

To this end, the signals of the local central processor switch from the reception of moving pictures to the reception of alphanumeric and graphic characters, likewise the identification data selector circuits for the individual parts (fragments) of the broadcast. The television channels are also switched if the individual fragments of a broadcast can be transmitted in more than one television channel. Furthermore, the output signals of the



central processor switch the recording and replay of the information in the local information source.

*Superimposition of Figure of Viewer in a Centrally Transmitted Broadcast*

The output signals of the local central processor insert the contours of the persons designated by the director in the viewfinder of the television camera. The figure of the viewer contained in these contours is overlaid on the main content.

*Transmission of Viewer's Response from Local Receiver Station*

The viewer's answer is entered into the memory of the local central processor or is output in parallel and converted into telephone signals comprising the signal of the subscriber's dial number and of the subscriber's answer. These signals are introduced into the subscriber telephone line. These answers, after statistical processing, are forwarded to the monitor at the television studio.

In applying Zaboklicki to reject claim 93, the FOA equates:

Applicants' processor instructions with Zaboklicki's digital processing program;

Applicants' second video image with Zaboklicki's displayed image generated from received teletext character/graphic codes;

Applicants' control signal with Zaboklicki's program fragment identification codes.

With respect to applicants' claim 93, Zaboklicki fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least first discrete signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal to produce a processor instruction; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

The FOA states that claim 93 differs from the showing of Zaboklicki in that the reference failed to show how the program fragments comprised of teletext fragments were displayed relative to program fragments of video programming. The FOA then takes official notice that it was well known in the art to have displayed data over video programming or in place of video programming, and further states that it would have been obvious to one of ordinary skill in the art to implement Zaboklicki to allow the teletext data to have been displayed in a conventional way.

Applicants would first like to point out that the Examiner has been unable to uncover a single anticipatory reference for independent claim 93. Moreover, the Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of the Zaboklicki reference and the Official Notice that is proposed. Second, this unlikely the reference **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Zaboklicki with an Official Notice. However, in the FOA fails to provide any explanation of what would be the motivation for the proposed combination. Examiner has made no demonstration whatsoever of motivation in the reference or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Zaboklicki fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 93.

Zaboklicki fails to teach or suggest applicants' amended recitation of organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal based on the first discrete signal; and generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

Specifically, the claim provides that discrete signals transmitted to a receiver station are organized at the receiver station into a processor instruction. Neither Zaboklicki's transmitted data fragment or digital processing program constitute discrete signals organized into a processor instruction, as recited by the claim. Moreover, the claim provides that the organized processor instruction causes the generation of an image by processing user specific data stored prior to the organizing of the processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Zaboklicki fails to disclose every element of claim 93 and thus, *ipso facto*, Zaboklicki fails to teach or suggest dependent claims 94-109, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Zaboklicki fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Zaboklicki fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed

above with respect to claim 93, applicants submit claim 101 is patentable in view of Zaboklicki.

**b. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 can be considered a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to render the code. Processing the code causes the receiver station to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station.

Specifically, claim 162 includes the element of:

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to identify a locally generated image and output said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

Applicants would first like to point out that the Examiner has been unable to uncover a single anticipatory reference for independent claim 162. Moreover, the Examiner's rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required

**motivation** to make the implausible combination of the Zaboklicki reference and the Official Notice that is proposed. Second, this unlikely the reference **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Zaboklicki with an Official Notice. However, in the FOA fails to provide any explanation of what would be the motivation for the proposed combination. Examiner has made no demonstration whatsoever of motivation in the reference or in the art to justify the result (whatever it is). Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Zaboklicki fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 162.

With respect to applicants' amended claim 162, Zaboklicki fails to, *inter alia*, teach or suggest, and the FOA fails to even address applicants' claim recitations, i.e.,

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to identify a locally generated image and output said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

Zaboklicki fails to teach or suggest and the FOA fails to address applicants' recitation of code comprised of organized information contained in at least two of said plurality of discrete signals, wherein said code enables said at least one receiver station to

identify a local image and output said local image in conjunction with said video image. The examiner is generally referred to the comments provided above for claim 167. The FOA merely refers to the paragraph regarding applicants' claim 75 to justify this one line rejection of claim 162. So applicants reiterate that the program fragments are manipulated by the digital processing program for presentation, but are ultimately "controlled" by the user input and the digital processing program. Likewise, there is no showing in Zaboklicki that any information from at least two signals are organized to identify a local image and output that image with a transmitted video image.

Additionally, Zaboklicki fails to teach or suggest a locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of a code comprising information of a first and second discrete signal.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 162 be withdrawn.

Claims 163-166 depend upon independent claim 162. As discussed *supra*, Zaboklicki fails to disclose every element of claim 162 and thus, *ipso facto*, Zaboklicki fails to teach or suggest dependent claims 163-166, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**21. 35 U.S.C. § 103 (a) Rejection Based on Oono et al. in View of Matsushita, Jap. Pat. No. 55-26792 and Rausch, U.S. Pat. No. 3,778,058.**

Paragraphs 92-101 reject claims 142-156 & 162-182 under 35 U.S.C. § 103(a) based on Oono et al. in view of Matsushita and Rausch.

**a. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 can be considered a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to render the code. Processing the code causes the receiver station to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station.

Specifically, claim 162 sets forth code that enables a receiver station to identify a locally generated image and output the local image in conjunction with a video image. The locally generated image is based on user specific data stored at the receiver station. Claim 162 includes the steps of receiving, transferring, and transmitting a first discrete signal, wherein the first discrete signal enables the receiver station to organize information contained in the first discrete signal with information contained in a second discrete signal.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. The data is transmitted in a format including a header and an information part. Based on a comparison of the header with an address of the receiving terminal, software data it is sequentially stored in the memory of a microcomputer. Upon execution of the stored software, a switch cause the video output of the microcomputer to be output rather than the video from the incoming television signal.

The English abstract of Matsushita indicates that a complex real screen is displayed by superimposing a pattern signal on an external video signal. Rausch describes a locally controlled video game using a television receiver. The game may employ a background received by broadcast television.

The Examiner's three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the implausible combination of three separate references that is proposed. Second, this combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 98 of the FOA the Examiner combines Oono with Matsushita and Rausch for the reasons that are set forth for claim 175 which in turn relies on the reasons set forth for claim 179. Regarding claim 179, the Examiner acknowledges that the software of Oono fails to output a video image that is overlaid on the video portion of a received TV portion. Accordingly, Oono fails to suggest applicants' receiver station enabled to output a locally generated image in conjunction with a received video image. As the Examiner provides no discussion of the elements of claim 162, the Examiner does not provide any explanation of why the ordinary artisan would be motivated to make such a combination, or any explanation of how these disparate references would be combined to show the limitations of claim 162. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Oono were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Matsushita and Rausch fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, Oono in view of Matsushita and Rausch fails to show or suggest transmission of discrete signals that are used to organize code at a receiver station



that is effective to (a) identify a locally generated image that is based on user specific data stored prior to organization of the code and (b) output the locally generated image with a remotely transmitted video image.

First, Oono discloses that software data is sequentially stored into a memory of a processing circuit's microcomputer. Oono does not suggest that the software data is organized as it stored. The software is stored in the same sequence as it is received. Accordingly, Oono does not suggest organizing discrete signals to provide code as set forth in claim 162.

Additionally, Oono in view of Matsushita and Rausch does not show or suggest a portion of a locally generated image that is based on user specific data stored at the receiver station prior to organizing discrete signals into code. First, Oono does not suggest any user specific data that forms the basis of a portion of a generated image. Second, as discussed above, Oono does not suggest the step of organizing discrete signals into code as set forth in claim 162. Thus, there is no suggestion whatsoever in the applied references that any user data is stored prior to organizing discrete signals into code as set forth in claim 162.

Applicants respectfully request that the rejection of claim 162 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Matsushita and Rausch be withdrawn.

Claims 163-166 depend upon independent claim 162. As discussed *supra*, the applied references of Oono in view of Matsushita and Rausch fails to disclose every element of claim 162 and thus, *ipso facto*, these applied references fail to render dependent claims 163-166 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 163-166 be withdrawn for at least the above reasons.

**b. Independent Claim 167 and Dependent Claims Thereto.**

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 167 includes the step of organizing information contained in a first discrete signal at the receiver station with information contained in a second discrete signal based on at least one control signal. Claim 167 also includes the step of displaying, at a video monitor, a second completed full-screen video graphic image, wherein the displayed second completed full-screen video graphic image contains a portion that is based on user specific data stored at the receiver station and only a portion of a first completed full-screen video graphic image. The first completed full-screen video graphic image is received from a remote transmitter station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. The data is transmitted in a format including a header and an information part. Based on a comparison of the header with an address of the receiving terminal, software data it is sequentially stored in the memory of a microcomputer. Upon execution of the stored software, a switch cause the video output of the microcomputer to be output rather than the video from the incoming television signal.

The English abstract of Matsushita indicates that a complex real screen is displayed by superimposing a pattern signal on an external video signal. Rausch describes a locally controlled video game using a television receiver. The game may employ a background received by broadcast television.

The Examiner's three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the implausible combination of three separate references that is proposed. Second, this combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 97 of the FOA the Examiner combines Oono with Matsushita and Rausch for the reasons that are set forth for claim 175 which in turn relies on the reasons set forth for claim 179. Regarding claim 179, the Examiner acknowledges that the software of Oono fails to output a video image that is overlaid on the video portion of a received TV portion. Accordingly, Oono fails to suggest applicants' step of displaying a second graphic image that containing a locally generated portion and a portion of a received first graphic image. As the Examiner provides no discussion of the elements of claim 167, the Examiner does not provide any explanation of why the ordinary artisan would be motivated to make such a combination, nor any explanation of how these disparate references would be combined to show the limitations of claim 167. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Oono were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Matsushita and Rausch fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that are organized into processor instructions at the receiver station.

The applied references also do not show or suggest that a portion of a second image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono discloses that software data is sequentially stored into a memory of a processing circuit's microcomputer. Oono does not suggest that the software data is organized as it stored. The software is stored in the same sequence as it is received. Accordingly, Oono does not suggest a processor instruction comprising organized information as set forth in claim 167. Furthermore, applicants' step of organizing is based on a control signal. Even if the process of storing downloaded software is considered organizing, Oono suggests no control signal on which the storing is based. As Matsushita and Rausch do not suggest organization of any kind, there is no suggestion in the applied references of a step of organizing discrete signal based on control signals as set forth by applicants' proposed claim 167.

Additionally, Oono in view of Matsushita and Rausch does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, Oono does not suggest any user specific data that forms the basis of a portion of an image. Second, as discussed above, Oono does not suggest the step of organizing as set forth in claim 167. Thus, there is no suggestion whatsoever in the applied references that any user data is stored prior to organizing discrete signals as set forth in claim 167.

Applicants respectfully request that the rejection of claim 167 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Matsushita and Rausch be withdrawn.

Claims 168-170 depend upon independent claim 167. As discussed *supra*, the applied references of Oono in view of Matsushita and Rausch fails to disclose every element of claim 167 and thus, *ipso facto*, these applied references fail to render dependent claims 168-170 obvious, and therefore, this rejection should be withdrawn and

the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 168-170 be withdrawn for at least the above reasons.

Moreover, claim 168 further provides that the portion of the locally generated second image is **generated** in accordance with the processor instruction that was organized. This feature, the generation of a local image in accordance with a processor instruction that is organized from discrete signals transmitted from a transmitter station, is not disclosed or suggested by the applied references.

**c. Independent Claim 171 and Dependent Claims Thereto.**

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station.

Specifically, claim 171 includes the steps of receiving, transferring, and transmitting one or more control signals that are operative at a receiver station to provide at least one processor instruction by causing the receiver station to organize partial information from a received first discrete signal with information in a second discrete signal. The processor instruction directs a portion of a second graphic image to a video monitor. The portion of the second video graphic is based on user specific data stored at the receiver station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The

data may be software data or picture data and may be stored at the receiver for further processing. The data is transmitted in a format including a header and an information part. Based on a comparison of the header with an address of the receiving terminal, software data it is sequentially stored in the memory of a microcomputer. Upon execution of the stored software, a switch cause the video output of the microcomputer to be output rather than the video from the incoming television signal.

The English abstract of Matsushita indicates that a complex real screen is displayed by superimposing a pattern signal on an external video signal. Rausch describes a locally controlled video game using a television receiver. The game may employ a background received by broadcast television.

The Examiner's three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the implausible combination of three separate references that is proposed. Second, this combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 95 of the FOA the Examiner combines Oono with Matsushita and Rausch for the reasons that are set forth for claim 175 which in turn relies on the reasons set forth for claim 179. Regarding claim 179, the Examiner acknowledges that the software of Oono fails to output a video image that is overlaid on the video portion of a received TV portion. Accordingly, Oono fails to suggest applicants' recitation a second graphic image that contain a portion based on user specific data and a portion of a transmitted first graphic image. As the Examiner provides no discussion of the elements of claim 171, the Examiner does not provide any explanation of why the ordinary artisan would be motivated to make such a combination, nor how these disparate references would be combined to show the limitations of claim 171. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Oono were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Matsushita and Rausch fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, Oono in view of Matsushita and Rausch fails to show or suggest transmission of control signals and discrete signals, where the control signals are effective to cause the discrete signals to be organized into a processor instruction that directs a portion of the second graphic image to a video monitor. The applied references also do not show or suggest a portion of a second image that is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono discloses that software data is sequentially stored into a memory of a processing circuit's microcomputer. Oono does not suggest that the software data is organized as it stored. The software is stored in the same sequence as it is received. Accordingly, Oono does not suggest providing a processor instruction by organizing information as set forth in claim 171. Furthermore, applicants' processor instructions are provided based on received control signals. Even if the process of storing downloaded software is considered organizing, Oono suggests no control signal on which the storing is based. As Matsushita and Rausch do suggest organization of any kind, there is no suggestion in the applied references of a processor instruction that is provided by organizing information contained in a first discrete signal with information in a second discrete signal based on control signals as set forth by applicants' proposed claim 171.

Additionally, Oono in view of Matsushita and Rausch does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, Oono does not suggest any user specific data that forms the basis of a portion of an image. Second, as discussed above, Oono does not suggest the step of organizing a processor instruction as set forth in

claim 171. Thus, there is no suggestion whatsoever in the applied references that any user data is stored prior to organizing a processor instruction as set forth in claim 171.

Applicants respectfully request that the rejection of claim 171 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Matsushita and Rausch be withdrawn.

Claims 172-174 depend upon independent claim 171. As discussed *supra*, the applied references of Oono in view of Matsushita and Rausch fails to disclose every element of claim 171 and thus, *ipso facto*, these applied references fail to render dependent claims 172-174 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 168-170 be withdrawn for at least the above reasons.

**d. Independent Claim 175 and Dependent Claims Thereto.**

Claim 175 is an OTS transmitter claim directed to controlling operations at downstream ITS and further downstream receiver stations. In claim 175, a first video graphic image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS. In claim 175, either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS to control the communication of (1) the processor instruction (if the ITS is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. Based on the assembled processor instruction, a portion of a second graphic image is displayed with a portion of a first graphics image, rendering a complete second graphic image.



Specifically, claim 175 includes a step of transmitting a signal from an origination station transmitter to a remote intermediate transmitter station. The signal contains at least one discrete signal that contains only a part of at least one processor instruction that instructs a receiver station to generate and output only a portion of a second completed full-screen video graphic image. The second completed full-screen video graphic image fills the entire surface area of a viewing screen when displayed at a video monitor and contains only a portion of a second completed full-screen video graphic image in conjunction with only a portion of said first completed full-screen video graphic image. Claim 175 also includes a step of receiving, at said origination transmitter station, one or more control signals that operate at a remote intermediate transmitter station to control communication of either (i) the first completed full-screen video graphic image and the at least one discrete signal or (ii) the first completed full-screen video graphic image and at least one processor instruction

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. The data is transmitted in a format including a header and an information part. Based on a comparison of the header with an address of the receiving terminal, software data it is sequentially stored in the memory of a microcomputer. Upon execution of the stored software, a switch cause the video output of the microcomputer to be output rather than the video from the incoming television signal.

The English abstract of Matsushita indicates that a complex real screen is displayed by superimposing a pattern signal on an external video signal. Rausch describes a locally controlled video game using a television receiver. The game may employ a background received by broadcast television.

The Examiner's three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or

showing of the required motivation to make the implausible combination of three separate references that is proposed. Second, this combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 95 of the FOA the Examiner combines Oono with Matsushita and Rausch for the reasons that are set forth for claim 179. Regarding claim 179, the Examiner acknowledges that the software of Oono fails to output a video image that is overlaid on the video portion of a received TV portion. Accordingly, Oono fails to suggest applicants' recitation of a second graphic image that contains a generated portion and a portion of a transmitted first graphic image. The Examiner asserts that Matsushita and Rausch show broadcast backgrounds for a video game output that correct the deficiencies of Oono. However, the Examiner does not provide any explanation of why the ordinary artisan would be motivated to make such a combination, nor how these disparate references would be combined. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Oono were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Matsushita and Rausch fails to, *inter alia*, teach or suggest all of the claim elements of this invention. In particular, Oono in view of Matsushita fails to show or suggest transmission of discrete signals that can be organized at an intermediate transmitter station or a receiver station into processor instructions. The applied references also do not show or suggest the recited control signal that controls communication at an intermediate transmission station, such as communication of graphic images and such discrete signals or processor instructions.

First, Oono discloses that software data is sequentially stored into a memory of a processing circuit's microcomputer. Oono does not suggest that the software data is

organized as it stored. The software is stored in the same sequence as it is received. There is no suggestion in Oono that the software is organized in a manner at an intermediate transmitter station. Accordingly, Oono does not suggest a processor instruction that is organized from discrete signals as set forth in claim 179.

Additionally, claim 175 sets forth transmitting a control signal from an origination station to a remote intermediate transmitter station. The control signal controls communication of the processor instruction or the discrete signals at the intermediate station based on where the discrete signals are organized. Oono does not suggest transmission of control signals that control communication of processor instructions through an intermediate transmission station. Oono suggests that software is requested from a broadcast or CATV station and is thus transmitted directly to the receiver station. As Oono suggests no intermediate station, Oono fails to suggest any control signal transmitted from an origination station to an intermediate transmitter station. As the secondary references of Matsushita and Rausch do not suggest a control signal that functions at an intermediate transmission station, the applied combination of references does not show or suggest transmitting control signals from an origination transmitter to a remote intermediate transmitter station as set forth in claim 175.

Applicants respectfully request that the rejection of claim 175 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Matsushita and Rausch be withdrawn.

Claim 176 depends upon independent claim 175. As discussed *supra*, the applied references of Oono in view of Matsushita and Rausch fails to disclose every element of claim 175 and thus, *ipso facto*, these applied references fail to render dependent claim 176 obvious. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claim 176 be withdrawn for at least the above reasons.

Moreover, dependent claim 176 further provides that the OTS transmits audio that describes information displayed in the presentation at the receiver station. This additional element is not disclosed or suggested by the applied references.

**e. Independent Claim 179 and Dependent Claims Thereto.**

In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 179 includes a step of displaying a second completed full-screen video graphic image at a video monitor. The displayed second completed full-screen video graphic image contains a portion of a first graphic image based on a received series of graphic images and a portion of a locally generated second graphic image that is based on user specific data stored at the receiver station.

Oono describes a video and data transmission and reception system for transmitting data such as a video game. The data is embedded in a television signal. The data may be software data or picture data and may be stored at the receiver for further processing. The data is transmitted in a format including a header and an information part. Based on a comparison of the header with an address of the receiving terminal, software data it is sequentially stored in the memory of a microcomputer. Upon

execution of the stored software, a switch cause the video output of the microcomputer to be output rather than the video from the incoming television signal.

The English abstract of Matsushita indicates that a complex real screen is displayed by superimposing a pattern signal on an external video signal. Rausch describes a locally controlled video game using a television receiver. The game may employ a background received by broadcast television.

The Examiner's three-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required motivation to make the implausible combination of three separate references that is proposed. Second, this combination of references still fails to teach all of the elements recited by the claim.

Regarding motivation for the combination, in paragraph 92 of the FOA the Examiner combines Oono with Matsushita and Rausch. The Examiner acknowledges that the software of Oono fails to output a video image that is overlaid on the video portion of a received TV portion. Accordingly, Oono fails to suggest applicants' recitation of displaying a second graphic image that contains a locally generated portion and a portion of a received first graphic image. The Examiner asserts that the Matsushita and Rausch show broadcast backgrounds for video game output and that this disclosure in combination with Oono render claim 179 obvious. However, the Examiner does not provide any explanation of why the ordinary artisan would be motivated to make such a combination, nor how these disparate references would be combined. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the three-part combination of references and modification of Oono were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Oono in view of Matsushita and Rausch fails to, *inter alia*, teach or suggest all of the claim elements of

this invention. In particular, Oono in view of Gunn fails to show or suggest transmission of discrete signals that are organized into processor instructions at the receiver station based on a control signal. The applied references also do not show or suggest that a portion of a second image is based on user specific data stored at the receiver station prior to organizing the processor instruction.

First, Oono discloses that software data is sequentially stored into a memory of a processing circuit's microcomputer. Oono does not suggest that the software data is organized as it stored. The software is stored in the same sequence as it is received. Accordingly, Oono does not suggest a processor instruction containing organized information as set forth in claim 179. Furthermore, applicants' step of organizing is based on a control signal. Even if the process of storing downloaded software is considered organizing, Oono suggests no control signal on which the storing is based. As Matsushita and Rausch does suggest organization of any kind, there is no suggestion in the applied references of organizing information contained a first discrete signal with information in a second discrete signal based on a control signal as set forth by applicants' proposed claim 179.

Additionally, Oono in view of Matsushita and Rausch does not show or suggest a portion of an image that is based on user specific data stored at the receiver station prior to organizing discrete signals into processor instructions. First, Oono does not suggest any user specific data that forms the basis of a portion of an image. Second, as discussed above, Oono does not suggest the step of organizing as set forth in claim 179. Thus, there is no suggestion whatsoever in the applied references that any user data is stored prior to a step of organizing as set forth in claim 179.

Applicants respectfully request that the rejection of claim 179 under 35 U.S.C. §103(a) as being unpatentable based on Oono in view of Matsushita and Rausch be withdrawn.

Claims 180-182 depend upon independent claim 179. As discussed *supra*, the applied references of Oono in view of Matsushita and Rausch fails to disclose every element of claim 179 and thus, *ipso facto*, these applied references fail to render dependent claims 180-182 obvious, and therefore, this rejection should be withdrawn and the claim be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Applicants respectfully request that this rejection of claims 180-182 be withdrawn for at least the above reasons.

Moreover, dependent claim 182 further provides that outputted audio from the transmitter station that is output with the video presentation states a significance of information displayed in the video graphic presentation. This additional element is not disclosed or suggested by the applied references, and therefore, this rejection should be withdrawn.

**22. 35 U.S.C. § 103 (a) Rejection Based on  
“WEATHER STAR” system as set forth in  
Galumbeck et al., U.S. Pat. No. 4,725,886 and  
Editor & Publisher, August 1981 Article,  
“Landmark Forms Cable Weather News  
Network.”**

Paragraph 102 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Galumbeck et al. in view of Editor & Publisher, August 1981 article, “Landmark Forms Cable Weather News Network.”

This rejection is improper. Galumbeck is a U.S. patent assigned on its face to the Weather Channel. The E&P article announces plans to launch the Weather Channel. The Examiner asserts that applicants have acknowledged that the pending claims encompass the “Weather Star” system employed by the Weather Channel. As Galumbeck and the E&P article describe features of the “Weather Star” system, the Examiner maintains that

the scope of each of applicants' currently pending claims are obviously, if not inherently, met by the showing of Galumbeck and the E&P article.

Applicants have licensed certain rights in applicants' issued patents to the owners of the Weather Channel. Applicants note the Weather Channel has produced no prior art that shows the inventions defined by applicants' issued claims. The assertion by the Examiner that applicants claims may read on the operation of the Weather Channel fails to demonstrate that the pending claims in this application are rendered obvious by the showing that is included in Galumbeck and the E&P article.

The Examiner has utterly failed to establish a rejection based on the "Weather Star" technology. The Examiner has both failed to analyze the contents of the references alleged to describe the "Weather Star" technology and failed to analyze applicants' pending claims. The MPEP sets forth:

After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:

- (A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,
- (B) the difference or differences in the claim over the applied reference(s),
- (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and
- (D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

MPEP § 706.02(j) (rev. 8, Aug. 2001) The Examiner has not attempted to comply with even one of these steps in making this rejection.

First, the Examiner has not set forth the relevant teachings of the prior art relied upon. The rejection is based on the "Weather Star" technology as set forth in Galumbeck and the E&P article. The Examiner merely states that these references describe "Weather Star" technology. The FOA includes no description of what "Weather Star" technology



is described in these references. Accordingly, the Examiner has utterly failed to identify any relevant teaching set forth in either Galumbeck or the E&P article.

Second, the Examiner has not set forth the differences in the claims over the applied references. The FOA include no analysis of any claim limitation of any of applicants' claims. Rather, a blanket rejection of all the pending claims in this application is asserted. The Examiner appears to base the rejection on the fact that the references are related to a system licensed under applicants' issued patents. This fact does not establishes that the pending claim in this application would have been obvious at the time of applicants' invention. As the Examiner has failed to analyze even a single claim in this application, the Examiner has utterly failed to set forth the differences in any claim over the applied reference.

Accordingly, the Examiner has failed to even begin to meet his burden in establishing a rejection under 35 U.S.C. § 103(a). As the relevant teaching of the prior art relied upon and the differences in the claims over the applied references have not been set forth, the Examiner can not reach the significant requirements of setting forth the proposed modifications of the applied art and setting forth the why the skilled artisan would have been motivated to make the proposed modification. The Examiner has simply failed to establish a rejection of the pending claims under 35 U.S.C. § 103(a) in any manner.

Finally, applicants maintain that Galumbeck is unavailable as prior art against all the pending claims except 64, 76, 101, and 127 for the reasons discussed above in Section III.D. The E&P article mentions certain proposed capabilities of the Weather Channel, but fails to provide any details of the operation of the Weather Channel system. Galumbeck and the E&P article thus fail to show that the invention defined by the pending claims would have been obvious to one of ordinary skill in the art as of the effective filing date of the pending claims. Applicants respectfully request that for at

least the above reasons, the blank rejection of the pending claims under 35 U.S.C. § 103(a) as being unpatentable based on Galumbeck and the E&P article be withdrawn.

**23. 35 U.S.C. § 103 (a) Rejection based on  
“Videotext Services Via CATV-Hybrid Systems  
Approach” by Dages in View of Oono et al.**

Paragraphs 103 & 104 reject claims 56-74 & 89-91 under 35 U.S.C. § 103(a) based on Dages in view of Oono et al.

**a. Independent Claim 56 and Dependent  
Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on “remotely originated” data received from a remote data source and “locally supplied” data. The “remotely originated” data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed “simultaneously.”

Specifically, claim 56 includes elements of:

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Dages discloses a hybrid data delivery system that combines teletext and viewdata. Viewdata information is requested over a dedicated two-way telephone link. Teletext data is extracted from cyclic broadcasts over the television broadcast system. In the proposed hybrid system, teletext is provided for receiving highly used informational pages of teletext, whereas the telephone connection is used for requesting infrequently used teletext pages and communications.

Oono et al. discloses a method in which software or picture data is superimposed on a video signal and transmitted to a home. The receiver includes a receiver, a data pickup circuit, a microcomputer, video RAM, a switch, and a circuit in which the output of the video RAM and external video are superimposed. Data superimposed on the video signal is provided to the data pickup circuit to be decoded. The microcomputer verifies that the data is addressed to the terminal prior to decoding the data. Software data is stored in memory of the microcomputer and the switch is switched to deliver output from the microcomputer and video RAM. Data to be superimposed is stored in video RAM and the switch is switched to output from the circuit in which output is superimposed.

The Examiner's two-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of two separate references that is proposed. Second, this combination of references **still fails to teach all of the elements recited by the claim.**

Regarding motivation for the combination, the FOA combines Dages with Oono et al. However, in neither paragraph does the Examiner provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, **how** these disparate references would be combined, nor what the **result** would be. In short, the Examiner has made no demonstration whatsoever of motivation in the references themselves or in the art to justify the result. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the two-part combination was proper in the first instance, a *prima facie* case of obviousness can not be sustained because Dages in view of Oono et al. fails to, *inter alia*, teach or suggest all of the claim elements of the invention defined by claim 56.

With respect to applicants' amended claim 56, Dages in view of Oono et al. fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving from said remote data source said remotely originated data to serve as a basis for displaying said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Neither Dages nor Oono et al. teach or suggest the processing of locally supplied data with remotely originated data to generate a local image. Both references teach that teletext data that is remotely originated, transmitted and displayed at the receiver station. Nothing locally supplied to the receiver station is processed to generate an image for display, nor is displayed with an image received from a remote video source.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Dages in view of Oono et al. fails to disclose every element of claim 56 and thus, *ipso facto*, Dages in view of Oono et al. fails to teach or suggest dependent claims 57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Dages includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and

locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Dages fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Dages fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Dages.

**24. 35 U.S.C. § 103 (a) Rejection based on  
Haselwood et al. U.S. Pat. No. 4,025,851 and  
Hutt, "The Vertical Interval: General Purpose  
Transmission Path" by Anderson, "Vertical  
Interval Signal Application" by Etkin, "Ad Hoc  
Committee on Television Broadcast Ancillary  
Signals" by O'Connor, "Ancillary Signals for  
Television Innovations and Implications," and  
Betts.**

Paragraph 105 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Haselwood et al. in view of Hutt, Anderson, Etkin, O'Connor, "Ancillary Signals for Television Innovations and Implications," and Betts.

With respect to the FOA's "Overview of Rejection" section under the same paragraph, applicants' respond to the FOA numbered paragraphs respectively:

1) applicants are not exclusively claiming origination, remote intermediate transmitter, and ultimate receivers stations; however, applicants' claimed invention pertains to the processing and functions of signals communicated between combinations of these stations and other stations as indicated in the claim language. Applicants believe that the claimed invention of the instant application is novel with respect to the prior art.

2) The FOA states that it is well known in the prior art (at the time of the invention) for programming distribution networks to include auxiliary/insertion data encoding/decoding functions to allow the distribution of data pertaining to various

applications throughout such networks. Applicants believe that the claimed invention of the instant application is novel with respect to the prior art.

3) The FOA states that it was well known in the prior art [at the time of the invention] to use “all-purpose” packetized data (“extended teletext”) embedded within the vertical blanking interval of the network programming as the vehicle for distributing the above mentioned auxiliary/insertion information. Again, applicants believe that the claimed invention of the instant application is novel with respect to the prior art.

Applicants’ summarize the “Formal Rejection” section:

I. Conventional television networks comprising of an origination station and a remote intermediate transmitter station capable of switching and transmitting local programming. The FOA states that Haselwood et al. is illustrative of such a conventional TV network configuration.

II. Conventional ancillary/insertion signal distribution systems comprising of display, control and monitoring signals inserted into the non-video portions of television signals (e.g., VBI) for transmission thus eliminating the need for an additional distribution system.

A) The references cited in Appendix IV list possible uses these above mentioned signals can have when transmitted in this manner: a) Hutt<sup>14</sup>, b) Etkins<sup>15</sup>, c) Ancillary Signals for Television<sup>16</sup>, and d) Anderson<sup>17</sup>.

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<sup>14</sup> Hutt: source identification; program category; destination of transmission; quality rating of original signals; switching instructions; source synchronization; monitoring and service data; telemetry to remote transmitters; program coordination; network time signals; transmission of captions to special domestic receivers; transmission of instructions and information to subsidiary studios, transmitters, displayed on monitors or print-outs; message transmission; commercial verification; remote control of unattended devices; regional news and weather service information; domestic information services; Oracle teletext service.

<sup>15</sup> Etkin: communications link to affiliated network stations; transfer of daily program logs; news wire distribution; communications with TV station mobile units; transmission of messages by ETV and ITFS systems; identification of program source; unattended VTR’s remote control; remote video switching; CATV non-duplication switchers remote control.

<sup>16</sup> Network signaling for news breaks and special announcements; continuous program log printouts; unique identification of programs and/or commercials; program sound channels; automatic operation of

B) The O'Connor reference is cited for its promotion of an "all-purpose data signal" for transmission in television signals in like manner having a list of ancillary signal functions<sup>18</sup>.

C) Software driven ancillary/insertion signal decoding circuitry of the kind described in the Betts reference replaced hardware based signal decoding circuitry.

III. The FOA's statement of obviousness is based on the teaching of Haselwood et al. disclosing a program monitoring television network which allowed digitally encoded ancillary/insertion signals to be transported throughout the network via the VBI of the distributed TV programming. The FOA states that

"it would have been obvious to modify the teaching of Haselwood et al. to allow the transport/distribution of ancillary/insertion signals pertaining to others of the notoriously well known ancillary/insertion signaling applications which were, quite literally, listed throughout [the] cited/applied prior art record."

The Final Office action then states that the present rejection is addressed to what the examiner believes [applicants] must be claiming given the section §112 first

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cable television nonduplicating switchers; precise time and frequency dissemination; test and reference signals; network or channel identification for automatic receiver tuning; signals for control of automatic channel equalizers; program categories; quality rating of original signal; destination of transmission control; source synchronization; telemetry to and from remote transmitters; program coordination; network time signal; transmission of instructions and other information to subsidiary studios; selective user addressing; regional news and/or weather service distribution; listing of forthcoming programs, i.e., program guide.

<sup>17</sup> Anderson: transmitting information to network affiliates; newswire distribution; remote computer access; centralized clock system control; remote control of VTR's and video switchers; test signal transmission.

<sup>18</sup> Network signaling for newsbreaks and special announcements; cueing to automatically start and stop equipment; continuous program log printout; unique identification of programs and/or commercials; program sound channel; emergency sound channel or second sound channel for non-English speaking minorities; subtitles for the deaf or for non-English speaking minorities; automatic operation of cable television non-duplication switchers; emergency action notification alerting; automatic operation of pre-set videotape recorders in schools; data transmission; facsimile transmission; precise time and frequency dissemination.

paragraph support. Applicants' respectfully traverse this rejection of the pending claims 56-182 in that the FOA fails to comply with MPEP 706(j) which states:

After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,

(B) the difference or differences in the claim over the applied reference(s),

(C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

The FOA fails to conform to the requirements of (A), fails to identify (B) the difference or differences in the claim over the applied reference(s), fails to provide (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and fails to provide (D) an explanation. MPEP 706(j) continues:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

The FOA fails to identify all of the claim limitations the prior art reference (or references when combined) taught or suggested. MPEP 706(j) continues:

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the



references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). See MPEP § 2144 - § 2144.09 for examples of reasoning supporting obviousness rejections.

Again, the FOA fails to direct this rejection toward applicants’ *claimed invention*.

All the FOA did with respect to applicants’ claimed invention was to broadly characterize all the claims, claims 56-182, by stating the “disclosure described a television broadcast/distribution system in which the VBI of distributed network TV programming was used as a transmission path for carrying and distributing information/data pertaining to a wide variety of monitoring, control, and enhancement functions.”

Applicants point out that the Examiner has been unable to uncover a single anticipatory reference for any of the independent claim covered in this blanket rejection. Moreover, the Examiner’s multi-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of separate references that are proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim**.

Regarding motivation for the combination, the FOA combines a multiplicity of references. However, the Examiner does not provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, nor **how** these disparate references would be combined. In fact, rather than combining the references, the Examiner seems to be asserting that the references disclose what is implicit. If this is the case, the Examiner’s rejection actually amounts to a modification of the primary reference, Haselwood, to “fill the gaps” between Haselwood and the claimed invention. However, the Examiner’s analysis (or lack thereof) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination of the three references, nor the necessary modifications to Haselwood. Thus, the Examiner has failed

to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the multi-part combination of references and modification of Haselwood were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Haselwood in view of the other references fails to, *inter alia*, teach or suggest all of the claim elements of this invention.

Since the FOA fails to direct the instant rejection toward applicants' claimed invention, applicants' response to the rejection will attempt to characterize the FOA's prior art combination of references and apply this characterization to applicants' claimed invention below. Even though the FOA has failed to meet the burden for a proper rejection under 35 U.S.C. § 103, applicants in the below sections will point out the limitations not present in any of the cited references.

**a. Independent Claim 56 and Dependent Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on "remotely originated" data received from a remote data source and "locally supplied" data. The "remotely originated" data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed "simultaneously."

Specifically, claim 56 includes elements of:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

With respect to applicants' amended claim 56, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e., processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fail to disclose every element of claim 56 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fail to teach or suggest dependent claims 57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Haselwood et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and

locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Haselwood et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Haselwood et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Haselwood et al.

**b. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80 is a transmitter claim for an “origination transmitter station” (OTS) that transmits control signals and instruct signals to control operations at a downstream “intermediate transmitter station” (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

Specifically, claim 80 includes the element of:

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

With respect to applicants’ amended claim 80, the FOA fails to address and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O’Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 80 be withdrawn.

Claims 81-83 & 92 depend upon independent claim 80. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 80 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 81-83 & 92, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**c. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user

specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Specifically, claim 84 includes the element of:

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

With respect to applicants' amended claim 84, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 84 be withdrawn.

Claims 85-88 depend upon independent claim 84. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 84 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 85-88, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**d. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Specifically, claim 93 includes elements of:

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least one control signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal based on said at least one control signal; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

With respect to applicants' claim 93, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least one control signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal based on said at least one control signal; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 93 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 94-109, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification.



Haselwood et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Haselwood et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Haselwood et al.

**e. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, claim 110 includes elements of:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said

portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data.

With respect to applicants' amended claim 110, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 110 be withdrawn.

Claims 111-115 depend upon independent claim 110. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 110 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 111-115, and therefore,

this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**f. Independent Claim 116 and Dependent Claims Thereto.**

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station of displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 includes elements of:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate

transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

With respect to applicants' amended claim 116, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 116 be withdrawn.

Claims 117-122 depend upon independent claim 116. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson,

O'Connor and Betts fails to disclose every element of claim 116 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 117-122, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**g. Independent Claim 123 and Dependent Claims Thereto.**

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Specifically, claim 123 includes elements of:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative

to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

With respect to applicants' amended claim 123, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 123 be withdrawn.

Claims 124-141 depend upon independent claim 123. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 123 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 124-141, and therefore,

this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Haselwood et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**h. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 is a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to provide the code, wherein the code enables the receiver station to be able to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station prior to organizing the code.

Specifically, claim 162 includes the element of:

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to be able to identify a locally generated image and output

said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

With respect to applicants' amended claim 162, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to be able to identify a locally generated image and output said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 162 be withdrawn.

Claims 163-166 depend upon independent claim 163. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 163 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 163-166, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).



**i. Independent Claim 167 and Dependent Claims Thereto.**

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 167 includes elements of:

passing, to said video monitor based on said step of responding to at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing.

With respect to applicants' amended claim 167, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

passing, to said video monitor based on said step of responding to at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 167 be withdrawn.

Claims 168-170 depend upon independent claim 168. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 168 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 168-170, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**j. Independent Claim 171 and Dependent Claims Thereto.**

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station.

Specifically, claim 171 includes elements of:

receiving at a transmitter station at least one discrete signal that contains only partial information of said at least one processor instruction; and

receiving said one or more control signals at said transmitter station, wherein said one or more control signals are operative at said at least one receiver station to provide said at least one processor instruction by causing said at least one receiver station to organize said partial information with information contained in a second discrete signal, said at least one processor instruction directing, to said video monitor, said only a portion of said second completed full-screen video graphic image, said viewing screen displaying said only a portion of said second completed full-screen video graphic image in

conjunction with said only a portion of said first completed full-screen video graphic image, wherein said only a portion of said second completed full-screen video graphic image is based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

With respect to applicants' amended claim 171, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at a transmitter station at least one discrete signal that contains only partial information of said at least one processor instruction; and

receiving said one or more control signals at said transmitter station, wherein said one or more control signals are operative at said at least one receiver station to provide said at least one processor instruction by causing said at least one receiver station to organize said partial information with information contained in a second discrete signal, said at least one processor instruction directing, to said video monitor, said only a portion of said second completed full-screen video graphic image, said viewing screen displaying said only a portion of said second completed full-screen video graphic image in conjunction with said only a portion of said first completed full-screen video graphic image, wherein said only a portion of said second completed full-screen video graphic image is based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 171 be withdrawn.

Claims 172-174 depend upon independent claim 171. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 171 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 172-174, and therefore,

this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**k. Independent Claim 175 and Dependent Claims Thereto.**

Claim 175 can be considered an origination transmitter station (OTS) transmitter claim directed to controlling operations at downstream intermediate transmitter station (ITS) and further downstream receiver stations. In claim 175, a first video graphics image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS station. In claim 175, similar to claim 116, either the ITS station or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS station to control the communication of (1) the processor instruction (if the ITS station is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. At the receiver station, the resulting processor instruction causes a portion of a second graphic image to be displayed with a portion of a first graphics image, rendering a complete second graphic image.

Specifically, claim 175 includes elements of:

receiving one or more instruct signals at said transmitter station, said one or more instruct signals at said at least one receiver station designating at least one processor instruction that is operative at said at least one receiver station to generate or identify locally and pass only a portion of a second completed full-screen video graphic image to said video monitor, said second completed full-screen video graphic image filling the entire surface area of said viewing screen when displayed at said video monitor and containing said only a portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image, wherein at

least one of said first completed full-screen video graphic image and said second completed full-screen video graphic image contains at least one graphic image.

With respect to applicants' amended claim 175, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

transmitting from said origination station transmitter to said remote intermediate transmitter station, at least one discrete signal that contains information comprising only a part of at least one processor instruction, wherein said at least one processor instruction is organized from information contained in said at least one discrete signal with information contained in a second discrete signal, wherein said at least one receiver station generates and outputs only a portion of a second completed full-screen video graphic image based on said at least one processor instruction, said second completed full-screen video graphic image filling the entire surface area of said viewing screen when displayed at said video monitor and containing said only a portion of a second completed full-screen video graphic image in conjunction with only a portion of said first completed full-screen video graphic image, wherein at least one of said first completed full-screen video graphic image and said second completed full-screen video graphic image contains at least one graphic image;

transmitting one or more control signals from said origination transmitter to said remote intermediate transmitter station, wherein,

(1) when said remote intermediate transmitter station is adapted to organize said at least one processor instruction, said one or more control signals are effective at said remote intermediate transmitter station to control communication of said first completed full-screen video graphic image and said at least one processor instruction, and

(2) when said at least one receiver station is adapted to organize said at least one processor instruction, said one or more controls signals are effective at

said remote intermediate transmitter station to control communication of said first completed full-screen video graphic image and said at least one discrete signal.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 175 be withdrawn.

Claim 176 depends upon independent claim 175. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 175 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claim 176, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**I. Independent Claim 179 and Dependent Claims Thereto.**

Claim 179 is a receiver station claim that is similar to claim 167. In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 179 includes elements of:

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to said at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying said second completed full-screen video graphic image at said video monitor, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only said portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image.

With respect to applicants' amended claim 179, the FOA fails to address, and Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to said at least one processor instruction, only a portion of a locally generated second completed full-screen

video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying said second completed full-screen video graphic image at said video monitor, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only said portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 179 be withdrawn.

Claims 180-182 depend upon independent claim 179. As discussed *supra*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to disclose every element of claim 179 and thus, *ipso facto*, Haselwood et al. in view of Hutt, Etkin, Ancillary Signals for Television, Anderson, O'Connor and Betts fails to teach or suggest dependent claims 180-182, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**25. 35 U.S.C. § 103 (a) Rejection based on  
Haselwood and Mothersole in View of  
“VIRDATA”, Chambers, U.S. Pat. No.  
4,337,485, Gunn et al., Anderson and Barrett,  
U.S. Pat. No. 4,205,343.**

Paragraph 106 rejects claims 56-182 under 35 U.S.C. § 103(a) based on Haselwood and Mothersole in view of Betts, “VIRDATA”, Chambers, Gunn et al., Anderson and Barrett.

Applicants’ summarize the “Formal Rejection” section of the FOA:



I. Conventional television networks comprising of an origination station and a remote intermediate transmitter station capable of switching and transmitting local programming. The FOA states that Haselwood et al. is illustrative of such a conventional TV network configuration.

II. Conventional television networks may be modified to have circuitry for inserting teletext data into the VBI of television programming at an associated source of teletext. The FOA states that Mothersole is illustrative of such a configuration.

III. All teletext receivers must have circuitry for extracting teletext data from television programming, as illustrated by Betts.

IV. Conventional ancillary/insertion signal distribution systems comprising of display, control and monitoring signals inserted into the non-video portions of television signals (e.g., VBI) for transmission thus eliminating the need for an additional distribution system.

A) The references cited in Appendix IV list possible uses these above mention signals can have when transmitted in this manner: a) Hutt<sup>19</sup>, b) Etkins<sup>20</sup>, c) Ancillary Signals for Television<sup>21</sup>, and d) Anderson<sup>22</sup>.

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<sup>19</sup> Hutt: source identification; program category; destination of transmission; quality rating of original signals; switching instructions; source synchronization; monitoring and service data; telemetry to remote transmitters; program coordination; network time signals; transmission of captions to special domestic receivers; transmission of instructions and information to subsidiary studios, transmitters, displayed on monitors or print-outs; message transmission; commercial verification; remote control of unattended devices; regional news and weather service information; domestic information services; Oracle teletext service.

<sup>20</sup> Etkin: communications link to affiliated network stations; transfer of daily program logs; news wire distribution; communications with TV station mobile units; transmission of messages by ETV and ITFS systems; identification of program source; unattended VTR's remote control; remote video switching; CATV non-duplication switchers remote control.

<sup>21</sup> Network signaling for news breaks and special announcements; continuous program log printouts; unique identification of programs and/or commercials; program sound channels; automatic operation of cable television nonduplicating switchers; precise time and frequency dissemination; test and reference signals; network or channel identification for automatic receiver tuning; signals for control of automatic channel equalizers; program categories; quality rating of original signal; destination of transmission control; source synchronization; telemetry to and from remote transmitters; program coordination; network time signal; transmission of instructions and other information to subsidiary studios; selective user

B) The O'Connor reference is cited for its promotion of an "all-purpose data signal" for transmission in television signals in like manner having a list of ancillary signal functions<sup>23</sup>.

C) Software driven ancillary/insertion signal decoding circuitry of the kind described in the Betts reference replaced hardware based signal decoding circuitry.

D) Gunn et al. suggests text that supplements television programming and computer programming.

E) Barret suggests encrypted teletext data transmitted to the receiver station.

V. The FOA's statement of obviousness is based on the teaching of Haselwood et al. disclosing a program monitoring television network which allowed digitally encoded ancillary/insertion signals to be transported throughout the network via the VBI of the distributed TV programming. The FOA states that

"it would have been obvious to modify the teaching of Haselwood et al. to allow the transport/distribution of ancillary/insertion signals pertaining to others of the notoriously well known ancillary/insertion signaling applications which were, quite literally, listed throughout [the] cited/applied prior art record."

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addressing; regional news and/or weather service distribution; listing of forthcoming programs, i.e., program guide.

<sup>22</sup> Anderson: transmitting information to network affiliates; newswire distribution; remote computer access; centralized clock system control; remote control of VTR's and video switchers; test signal transmission.

<sup>23</sup> Network signaling for newsbreaks and special announcements; cueing to automatically start and stop equipment; continuous program log printout; unique identification of programs and/or commercials; program sound channel; emergency sound channel or second sound channel for non-English speaking minorities; subtitles for the deaf or for non-English speaking minorities; automatic operation of cable television non-duplication switchers; emergency action notification alerting; automatic operation of pre-set videotape recorders in schools; data transmission; facsimile transmission; precise time and frequency dissemination.

The Final Office action then states that the present rejection is addressed to what the examiner believes [applicants] must be claiming given the section §112 first paragraph support. Applicants' respectfully traverse this rejection of the pending claims 56-182 in that the FOA fails to comply with MPEP 706(j) which states:

After indicating that the rejection is under 35 U.S.C. 103, the examiner should set forth in the Office action:

(A) the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line number(s) where appropriate,

(B) the difference or differences in the claim over the applied reference(s),

(C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter, and

(D) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification.

The FOA failed to identify (B) the difference or differences in the claim over the applied reference(s), and (C) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter. MPEP 706(j) continues:

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP § 2143 - § 2143.03 for decisions pertinent to each of these criteria.

The FOA failed to identify all of the claim limitation the prior art reference (or references when combined) taught or suggested. MPEP 706(j) continues:

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter,

either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.” *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). See MPEP § 2144 - § 2144.09 for examples of reasoning supporting obviousness rejections.

Again, the FOA failed to direct this rejection toward applicants’ *claimed invention*. All the FOA did with respect to applicants’ claimed invention was to broadly characterize all the claims, claims 56-182, by stating the “disclosure described a television broadcast/distribution system in which the VBI of distributed network TV programming was used as a transmission path for carrying and distributing information/data pertaining to a wide variety of monitoring, control, and enhancement functions.”

Applicants point out that the Examiner has been unable to uncover a single anticipatory reference for any of the independent claim covered in this blanket rejection. Moreover, the Examiner’s multi-part rejection fails to establish a *prima facie* case of obviousness on two separate bases. First, the Examiner has made no demonstration or showing of the required **motivation** to make the implausible combination of separate references that are proposed. Second, this unlikely combination of references **still fails to teach all of the elements recited by the claim**.

Regarding motivation for the combination, the FOA combines a multiplicity of references. However, the Examiner does not provide any explanation of **why** the ordinary artisan would be motivated to make such a combination, nor **how** these disparate references would be combined. In fact, rather than combining the references, the Examiner seems to be asserting that the references disclose what is implicit. If this is the case, the Examiner’s rejection actually amounts to a modification of the primary reference, Haselwood, to “fill the gaps” between Haselwood and the claimed invention. However, the Examiner’s analysis (or lack thereof) fails to identify the necessary modifications, and importantly, fails to provide any motivation whatsoever for

effectuating the necessary modifications. In short, the Examiner has made no demonstration whatsoever of motivation to justify the proposed combination of the three references, nor the necessary modifications to Haselwood. Thus, the Examiner has failed to demonstrate a *prima facie* case of obviousness, and the rejection should be withdrawn on this basis alone.

Regarding the results of the proposed combination, even if the multi-part combination of references and modification of Haselwood were proper in the first instance, a *prima facie* case of obviousness can not be sustained because Haselwood in view of the other references fails to, *inter alia*, teach or suggest all of the claim elements of this invention.

Since the FOA fails to direct the instant rejection toward applicants' claimed invention, applicants' response to the rejection will attempt to characterize the FOA's prior art combination of references and apply this characterization to applicants' claimed invention below. Even though the FOA has failed to met the burden for a proper rejection under 35 U.S.C. § 103, applicants in the below sections will point out the limitations not present in any of the cited references.

**a. Independent Claim 56 and Dependent Claims Thereto.**

Claim 56 is directed to a method for presenting a video presentation including a remotely-transmitted image and a locally-generated image. The remotely-transmitted image comes from a remote video source. The locally-generated image is created based on "remotely originated" data received from a remote data source and "locally supplied" data. The "remotely originated" data is received in response to a request sent from the user station to the remote data source. The remotely-transmitted image and the locally-generated image are displayed "simultaneously."

Specifically, claim 56 includes elements of:

originating at said video apparatus at least a first request in order to enable content to be displayed in said video presentation;

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

With respect to applicants' amended claim 56, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

processing said remotely originated data and said locally supplied data at said video apparatus in order to generate said locally generated image; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 56 be withdrawn.

Claims 57-74 & 89-91 depend upon independent claim 56. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 56 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 57-74 & 89-91, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 64 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Haselwood et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed

above with respect to claim 56, applicants request the withdrawal of this rejection of claim 64.

Applicants propose to amend claim 76 to depend from claim 56. Proposed claim 76 sets forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Haselwood et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Haselwood et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 56, applicants submit claim 76 is patentable in view of Haselwood et al.

**b. Independent Claim 80 and Dependent Claims Thereto.**

Claim 80 is a transmitter claim for an “origination transmitter station” (OTS) that transmits control signals and instruct signals to control operations at a downstream “intermediate transmitter station” (ITS) and a further downstream receiver station. The OTS transmits a signal having video and an instruct signal that controls operations at a receiver station. The OTS also transmits a control signal that controls operations at the ITS. The control signal is operative at the ITS to control the communication of the video and/or the instruct signal at the ITS. The instruct signal is operative at the receiver station to generate and/or output locally-generated video and cause the local video to be presented with the remotely-transmitted video at the receiver station.

Specifically, claim 80 includes the element of:

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and

cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

With respect to applicants' amended claim 80, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

transmitting a signal from an origination transmitter to a remote intermediate transmitter station, said signal containing video and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a locally generated portion of said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 80 be withdrawn.

Claims 81-83 & 92 depend upon independent claim 80. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 80 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 81-83 & 92, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**c. Independent Claim 84 and Dependent Claims Thereto.**

Claim 84 is a transmitter method claim for a transmitter station to transmit a plurality of discrete signals that are organized at a receiver station into instructions that have specified effects at the receiver station. In claim 84, video and a first discrete signal are received and transmitted by the transmitter station. The first discrete signal operates



to allow the receiver station to create a processor instruction by organizing information from the first discrete signal with information from a second discrete signal. The processor instruction is effective at the receiver station to deliver a locally-generated image with the remotely-transmitted video. The locally-generated image is based on user specific data. The user specific data is stored at the receiver station prior to creating the processor instruction.

Specifically, claim 84 includes the element of:

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

With respect to applicants' amended claim 84, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fails to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image

being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 84 be withdrawn.

Claims 85-88 depend upon independent claim 84. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 84 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 85-88, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**d. Independent Claim 93 and Dependent Claims Thereto.**

Claim 93 is directed to a method for a receiver station to receive discrete signals that are organized into a complete instruction with a specified effect. In claim 93, the receiver station receives, detects, and passes a first discrete signal found in an information transmission to a processor. The receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to create a locally-generated image by processing stored user specific subscriber data in order to replace a portion of a first video image. The user specific data was stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a first video image and then the locally-generated image replacing a portion of the former.

Specifically, claim 93 includes elements of:

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least one control signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal based on said at least one control signal; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

With respect to applicants' claim 93, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at least one information transmission at said receiver station, said at least one information transmission containing ... at least one control signal;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal based on said at least one control signal; and

generating an image to replace only a portion of said video image by processing at least one user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of independent claim 93 be withdrawn.

Claims 94-109 depend upon independent claim 93. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 93 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 94-109, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants propose to amend claim 101 to set forth a plurality of video apparatus that store the remotely originated data and locally supplied data in a file, where each of the video apparatus uses an identical file format as is disclosed in the 1987 specification. Haselwood et al. fails to suggest storing remotely originated data and locally supplied data in any file. Accordingly, Haselwood et al. fails to suggest that the file format is identical among a plurality of video apparatus. For at least this reason, in addition to the reasons discussed above with respect to claim 93, applicants submit claim 101 is patentable in view of Haselwood et al.

**e. Independent Claim 110 and Dependent Claims Thereto.**

Claim 110 is a transmitter station claim for transmitting processor instructions effective at a receiver station. Claim 110 provides that the transmitter station receives and transmits a first discrete signal. A first processor instruction includes information organized from information in the first discrete signal and in a second discrete signal. The transmitter station also receives and transmits an additional processor instruction. The first processor instruction and the additional processor instruction operate at a receiver station. The first processor instruction programs the receiver station to be able to respond to the additional processor instruction. The additional processor instruction is for outputting a portion of a video presentation. The portion is based on user specific data stored at the receiver station prior to organizing the first processor instruction.

Specifically, claim 110 includes elements of:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor

instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data.

With respect to applicants' amended claim 110, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 110 be withdrawn.

Claims 111-115 depend upon independent claim 110. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al.,

Anderson and Barrett fail to disclose every element of claim 110 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, “VIRDATA”, Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 111-115, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**f. Independent Claim 116 and Dependent Claims Thereto.**

Claim 116 is an OTS transmitter claim for sending control signals and discrete signals that control operations at downstream ITSs and/or further downstream receiver stations. In claim 116, there is an OTS transmitter that is the focus of the claim, a separate remote ITS, and receiver stations. The OTS transmits a control signal and a first discrete signal. Either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render a processor instruction. Accordingly, the control signal is effective at the ITS to control the communication of (i) the processor instruction (if the ITS is to assemble the instruction) or (ii) the first discrete signal (if the receiver station is to assemble the instruction). Based on the assembled processor instruction, the receiver station displays a locally-generated image with remotely-generated video from the ITS.

Specifically, claim 116 includes elements of:

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

With respect to applicants' amended claim 116, the FOA fails to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

transmitting a first discrete signal from an origination transmitter to said remote intermediate transmitter station, wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said information contained said first discrete signal with said information contained in said second discrete signal; and

transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 116 be withdrawn.

Claims 117-122 depend upon independent claim 117. As discussed *supra*, Haselwood and Mothersole in view of Betts, “VIRDATA”, Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 117 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, “VIRDATA”, Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 117-122, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**g. Independent Claim 123 and Dependent Claims Thereto.**

Claim 123 is a transmitter claim for controlling operations at a receiver station by sending pieces of information that will allow an instruct signal to be effective at a receiver station to generate a second image of a video presentation. The second image is based on user specific data stored at the receiver station. The instruct signal requires an identifier (ID) that identifies the second image. Accordingly, a transmitter station receives and transmits downstream the instruct signal, a first discrete signal, and a control signal. The control signal is operative at a receiver station to allow partial information of the ID in the first discrete signal to be organized with information from a second discrete signal, rendering the ID. This ID designates the second image to be delivered in conjunction with a first image in accordance with the instruct signal. The user specific data upon which the second image is based was stored prior to organizing the ID.

Specifically, claim 123 includes elements of:

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said



identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

With respect to applicants' amended claim 123, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at least one first discrete signal and at least one control signal at said remote transmitter station, said at least one first discrete signal including only partial information of said identifier and said at least one control signal operative to provide said identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said identifier designates said second image at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 123 be withdrawn.

Claims 124-141 depend upon independent claim 123. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 123 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 124-141, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Furthermore, applicants propose to amend claim 127 to set forth determining that the locally generated image is complete as disclosed in the 1987 specification. As discussed above, Haselwood et al. includes no suggestion to determine that the locally generated image is complete. For at least this reason, in addition to the reasons discussed above with respect to claim 123, applicants request the withdrawal of this rejection of claim 127.

**h. Independent Claim 162 and Dependent Claims Thereto.**

Claim 162 is a transmitter station claim for controlling operations at a receiver station by transmitting discrete signals that are organized so as to enable code to be processed at the receiver station. In claim 162, a video image and a first discrete signal are received and transmitted by the transmitter station. At the receiver station, the first discrete signal is organized with a second discrete signal in order to provide the code, wherein the code enables the receiver station to be able to identify a locally generated image and output the locally generated image with a remotely transmitted image. The locally generated image is based on user specific data stored at the receiver station prior to organizing the code.

Specifically, claim 162 includes the element of:

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to be able to identify a locally generated image and output said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

With respect to applicants' amended claim 162, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, wherein said code enables said at least one receiver station to be able to identify a locally generated image and output said locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least on receiver station prior to said organizing of said code.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 162 be withdrawn.

Claims 163-166 depend upon independent claim 162. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 162 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al.,

Anderson and Barrett fail to teach or suggest dependent claims 163-166, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**i. Independent Claim 167 and Dependent Claims Thereto.**

In claim 167, the receiver station receives a first discrete signal and a first video graphic image. The remotely-transmitted first video graphic image is output at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion is based on user specific data stored at the receiver station prior to the organizing of the processor instruction. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 167 includes elements of:

passing, to said video monitor based on said step of responding to at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing.

With respect to applicants' amended claim 167, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

passing, to said video monitor based on said step of responding to at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second

completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 167 be withdrawn.

Claims 168-170 depend upon independent claim 168. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 168 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 168-170, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**j. Independent Claim 171 and Dependent Claims Thereto.**

In claim 171, a transmitter station transmits a control signal and a first discrete signal. At a receiver station, the control signal causes the first discrete signal and a second discrete signal to be organized into a processor instruction. The processor instruction is effective at the receiver station to cause a portion of a second graphic image to be displayed with a portion of a first graphics image, thereby rendering a complete second graphic image. The portion of the second graphic image is based on user specific data stored at the receiver station.

Specifically, claim 171 includes elements of:

receiving at a transmitter station at least one discrete signal that contains only partial information of said at least one processor instruction; and

receiving said one or more control signals at said transmitter station, wherein said one or more control signals are operative at said at least one receiver station to provide said at least one processor instruction by causing said at least one receiver station to

organize said partial information with information contained in a second discrete signal, said at least one processor instruction directing, to said video monitor, said only a portion of said second completed full-screen video graphic image, said viewing screen displaying said only a portion of said second completed full-screen video graphic image in conjunction with said only a portion of said first completed full-screen video graphic image, wherein said only a portion of said second completed full-screen video graphic image is based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

With respect to applicants' amended claim 171, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving at a transmitter station at least one discrete signal that contains only partial information of said at least one processor instruction; and

receiving said one or more control signals at said transmitter station, wherein said one or more control signals are operative at said at least one receiver station to provide said at least one processor instruction by causing said at least one receiver station to organize said partial information with information contained in a second discrete signal, said at least one processor instruction directing, to said video monitor, said only a portion of said second completed full-screen video graphic image, said viewing screen displaying said only a portion of said second completed full-screen video graphic image in conjunction with said only a portion of said first completed full-screen video graphic image, wherein said only a portion of said second completed full-screen video graphic image is based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction.

Applicants respectfully request that the 35 U.S.C. §103(a)' rejection of amended independent claim 171 be withdrawn.

Claims 172-174 depend upon independent claim 171. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 171 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 172-174, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**k. Independent Claim 175 and Dependent Claims Thereto.**

Claim 175 is an OTS transmitter claim directed to controlling operations at downstream ITS and further downstream receiver stations. In claim 175, a first video graphic image, a first discrete signal, and a control signal are transmitted from the OTS transmitter to the ITS. In claim 175, either the ITS or a downstream receiver station can organize the first discrete signal with a second discrete signal in order to render the processor instruction. Accordingly, claim 175 provides that the control signal is effective at the ITS to control the communication of (1) the processor instruction (if the ITS is to assemble the instruction) and the first video graphics image, or (2) the first discrete signal (if the receiver station is to assemble the instruction) and the first video graphics image. Based on the assembled processor instruction, a portion of a second graphic image is displayed with a portion of a first graphics image, rendering a complete second graphic image.

Specifically, claim 175 includes elements of:

receiving one or more instruct signals at said transmitter station, said one or more instruct signals at said at least one receiver station designating at least one processor instruction that is operative at said at least one receiver station to generate or identify locally and pass only a portion of a second completed full-screen video graphic image to

said video monitor, said second completed full-screen video graphic image filling the entire surface area of said viewing screen when displayed at said video monitor and containing said only a portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image, wherein at least one of said first completed full-screen video graphic image and said second completed full-screen video graphic image contains at least one graphic image.

With respect to applicants' amended claim 175, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

receiving one or more instruct signals at said transmitter station, said one or more instruct signals at said at least one receiver station designating at least one processor instruction that is operative at said at least one receiver station to generate or identify locally and pass only a portion of a second completed full-screen video graphic image to said video monitor, said second completed full-screen video graphic image filling the entire surface area of said viewing screen when displayed at said video monitor and containing said only a portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image, wherein at least one of said first completed full-screen video graphic image and said second completed full-screen video graphic image contains at least one graphic image.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 175 be withdrawn.

Claim 176 depends upon independent claim 175. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 175 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claim 176, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent



claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**I. Independent Claim 179 and Dependent Claims Thereto.**

Claim 179 is a receiver station claim that is similar to claim 167. In claim 179, the receiver station receives a first discrete signal and a series of video images including a first video graphic image. The series of video images, including the remotely-transmitted first video graphic image, is displayed at a video monitor. Based on a control signal, the receiver station organizes the first discrete signal with a second discrete signal into a processor instruction. The processor instruction is effective to cause a portion of a locally generated second image to be output to the video monitor. The portion of the locally generated second image is based on user specific data stored at the receiver station. The result is an outputted presentation of a complete second image including the locally generated portion and a portion of the first video graphic image.

Specifically, claim 179 includes elements of:

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to said at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying said second completed full-screen video graphic image at said video monitor, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only said portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image.

With respect to applicants' amended claim 179, the FOA failed to address, and Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to, *inter alia*, teach or suggest all of the claim recitations, i.e.,

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to said at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying said second completed full-screen video graphic image at said video monitor, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only said portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image.

Applicants respectfully request that the 35 U.S.C. §103(a) rejection of amended independent claim 179 be withdrawn.

Claims 180-182 depend upon independent claim 179. As discussed *supra*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to disclose every element of claim 179 and thus, *ipso facto*, Haselwood and Mothersole in view of Betts, "VIRDATA", Chambers, Gunn et al., Anderson and Barrett fail to teach or suggest dependent claims 180-182, and therefore, this rejection should be withdrawn and the claims be permitted to issue. If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

**G. Response to Miscellaneous Issues Raised in Final Office Action**

In section VII of the FOA ("Evidence of a Shell Game?") the Examiner makes several assertions related to applicants' allegedly improper conduct in connection with the prosecution of this application. For example, the Examiner asserts that applicants have amended claims without "formally notifying the Office/examiners when claims/issues have been considered elsewhere in the record." FOA section VII (H&W 74). Applicants maintain that they have complied with their duties under Rule 56 and that they have informed the examiners of all related applications pending by applicants. Further, applicants have made considerable effort to assist the many examiners in the related cases with the efficient prosecution of applicants' pending cases. In making his argument the Examiner misinterprets a statement made by applicants in their "Petition to the Commissioner under 37 C.F.R. § 1.181" to have the Administrative Requirement ("AR") lifted in the instant application. Contrary to the Examiner's assertion, applicants did not express an intent to present conflicting claims within different applications in order to obtain different interpretations from others. Instead, applicants simply pointed out that the AR requiring applicants to narrow their claims improperly forces applicants to decide on a definitive interpretation of their claims before the Examiners charged with Examining the claims have interpreted the pending claims. It is the Examiner's

responsibility, not applicants, to make a determination as to whether the claims submitted by applicants conflict.

The Examiner alleges that in response to a rejection, applicants deleted “completed” terminology in a related case (Application Serial No. 80/471,024 (“’024 application”)) and then reintroduced the “completed” terminology in the instant case when claims were added in connection applicants’ agreement to consolidate certain of their pending applications. Applicants do not understand the Examiner’s comments on this point. Applicants did not delete the term “completed” for any reason relating to patentability in connection with the ’024 application. Indeed, the Examiner made no rejection based on the presence or absence of the term “completed” in the claims of the ’024 application. There is no reason why applicants would not be entitled to pursue claims that include the term “completed” in one application and claims that do not included the term “completed” in another application.

The Examiner further alleges that applicants have attempted to “misdirect” the focus of the section 112-1 issues to the 1981 disclosure. The Examiner’s allegations on this issue are without merit. First, applicants note that they have, in fact, identified citations to the 1987 specification that support the existing claims. *See* Support Charts. Second, the Examiner is incorrect in his implication that there is only one “proper” specification at issue in this application. As applicants claim priority to their 1981 application, under 35 U.S.C. § 120, the 1981 specification is entirely relevant. Further, contrary to the Examiner’s assertion, applicants are confident that they can demonstrate all requisite support under § 112, first paragraph, in their 1987 application. To this end, applicants have submitted a detailed chart identifying all such support in both the 1981 and the 1987 specifications. Finally, applicants maintain that the Examiner’s preoccupation with applicants’ allegedly impossible task of demonstrating support in the 1987 specification is largely a trivial point because all of the teachings, details and

disclosures from the 1981 specification, are for all practical purposes, also contained in the 1987 specification.

The Examiner also raises several allegations related to alleged inconsistent positions advanced by applicants in connection with the Campbell reference (U.S. Patent No. 4,536,791). The Examiner's characterization relates to alleged events surrounding the prosecution of application Serial Nos. 08/441,577 ("the '577 application"), 08/446,431 ("the '431 application") and 08/484,858 ("the '858 application"). Contrary to the Examiner's position, applicants have not taken inconsistent positions regarding the effect or interpretation of the Campbell reference. The principal flaw in the Examiner's argument is that applicants did not amend the '431 application to avoid the Campbell reference. The claims in the '431 case were amended, but the amendments did not change the scope of the claims to avoid the Campbell reference. The Examiner cannot substantiate his claim that applicants amended the claims in their February 1998 Response in the '431 case to avoid Campbell. Applicants have steadfastly maintained throughout all of their interviews with the PTO and submissions to the PTO that Campbell does not teach "simultaneous or sequential presentation." The Examiner's quote in the FOA (at P.80) that applicants amended claim 13 "to avoid the prior art' (Campbell et al) 'for reasons of patentability'" is incorrect. In the February 1998 Response, applicants traversed the Examiner's rejection of claim 13, specifically arguing that Campbell is silent on "at least one subscriber datum for at least one of simultaneous presentation and sequential presentation ...." Accordingly, applicants were under no duty to inform the Examiner in the '577 or '858 applications of applicants' position with respect to Campbell in the '431 case because applicants' position was consistent in both cases.

Applicants further disagree with the Examiner's description of the events surrounding the interview of June 15, 1999. Numerous interviews were conducted during the spring and summer of 1999, in which the teachings of Campbell were thoroughly

discussed. Applicants were then, are now, and have always been of the view that Campbell does not teach or suggest the claimed subject matter of application Serial No. 08/470,571, or any of applicants' related applications.

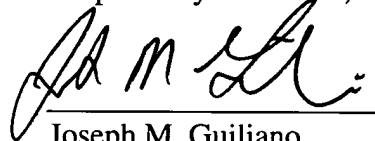
For the foregoing reasons, applicants maintain that the Examiner's arguments in section VII of the FOA are without merit and that they have not engaged in any improper conduct or neglected any of their duties owed to the PTO in connection with the instant application or any related applications.

#### IV. CONCLUSION

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. Further, all pending claims are patentably distinguishable over the prior art of record, taken in any proper combination. Reconsideration and allowance of the instant application are respectfully requested.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

Respectfully submitted,



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**Appendix A**

**Marked-Up Claim Language**



*(Unamended claims have been included in numerical order for the convenience of examination.)*

56. **(Five Times Amended)** A method for receiving and processing remotely originated and locally supplied data for use with an [interactive] video apparatus, said [interactive] video apparatus having a video output device for displaying a video presentation comprising a locally generated image and an image received from a remote video source, said method comprising the steps of:

originating at said [interactive] video apparatus at least a first request in order to enable content to be displayed in said video presentation;

communicating [one of] said at least said first request [and a second request] to a remote data source;

receiving from said remote data source said remotely originated data to serve as a basis for displaying said video presentation;

processing said [data] remotely originated data and said locally supplied data at said [interactive] video apparatus in order to [present] generate said locally generated image [with said image from said remote video source]; and

simultaneously displaying said locally generated image and said image received from said remote video source at said video output device [in conjunction with said image from said remote video source].

57. **(Four Times Amended)** The method of claim 56, further comprising the step of programming said [interactive] video apparatus to perform any one of said steps of originating, communicating, receiving, processing, and displaying.

58. **(Three Times Amended)** The method of claim 57, wherein said [interactive] video apparatus includes a computer and said step of programming comprises the steps of:

- storing at least one processor instruction in said computer;
- detecting an instruct signal received at said [interactive] video apparatus; and
- executing said at least one processor instruction in response to said instruct signal.

59. **(Unchanged)** The method of claim 58, further comprising the steps of:

- detecting said at least one processor instruction in a signal transmitted from one of said remote video source and said remote data source; and
- inputting said at least one processor instruction to said computer.

60. **(Unchanged)** The method of claim 56, further comprising processing an identifier.

61. **(Unchanged)** The method of claim 60, wherein said identifier identifies at least one of:

- mass medium programming;
- digital programming;
- a communications resource; and
- said locally generated image.

62. **(Twice Amended)** The method of claim 61, wherein said identifier is received at said [interactive] video apparatus from one of said remote video source and said remote data source.

63. **(Twice Amended)** The method of claim 56, wherein said [interactive] video apparatus communicates with said remote data source via a digital information channel.

64. **(Twice Amended)** The method of claim 56, [wherein said one of (i) said first data and (ii) second data is received from said remote video source, said method] further comprising the step of [generating] determining that said locally generated image [by processing said first data and said second data] is complete.

65. **(Five Times Amended)** The method of claim [64] 56, wherein said [interactive] video apparatus includes a computer, said method further comprising the steps of:

organizing first information contained in [said] a first discrete signal with second information contained in a second discrete signal in order to enable said [interactive] video apparatus to process at least one processor instruction which comprises said first information and said second information; and

causing said computer to respond to said at least one processor instruction.

66. **(Unchanged)** The method of claim 65, wherein said step of organizing is performed by a processor.

67. **(Unchanged)** The method of claim 56, further comprising the step of storing first programming in order to present a portion of said at least one of said locally generated image and said image received from said remote video source at a particular time or place.

68. (Unchanged) The method of claim 67, wherein said video output device displays said locally generated image based on said step of storing.

69. **(Five Times Amended)** The method of claim 67, wherein said [interactive] video apparatus includes a computer which stores said remotely originated and said locally supplied data.

70. **(Four Times Amended)** The method of claim 67, wherein said [interactive] video apparatus includes a computer which generates said locally generated image in response to at least one instruction, said method further comprising the step of inputting said first programming to said computer.

71. (Unchanged) The method of claim 70, further comprising the step of programming said computer to respond to said at least one instruction.

72. (Unchanged) The method of claim 71, wherein said step of programming comprises the steps of:  
receiving a programming transmission from said remote video source; and  
inputting at least a portion of said programming transmission to said computer.

73. **(Three Times Amended)** The method of claim 72, wherein said [interactive] video apparatus receives encrypted video from said remote video source.

74. **(Twice Amended)** The method of claim 71, wherein said [interactive] video apparatus includes a local device which inputs selected information to said computer, said method further comprising the step of inputting said at least one instruction from said local device to said computer.

75. (Cancelled)

76. (Four Times Amended) The method of claim [75, said method further comprising the steps of  
receiving at least a portion of said first video image at said one of said first and second transmitter stations; and  
transmitting said at least a portion of said first video image to said at least one receiver station] 56 wherein each of a plurality of video apparatus stores respective remotely originated data and locally supplied data in a file, each said file of a particular video apparatus of said plurality of video apparatus being of a format identical to the files of the others of said plurality of video apparatus containing respective remotely originated data and locally supplied data of said others of said plurality of video apparatus.

77. (Cancelled)

78. (Cancelled)

79. (Cancelled)

80. (Four Times Amended) A method of delivering a video presentation at at least one receiver station of a plurality of receiver stations each of which [includes a receiver, a signal detector, a processor, and an output device, and] is adapted to detect the presence of at least one signal, said method comprising the steps of:

[receiving, at an origination transmitter station, video to be transmitted by a remote intermediate transmitter station;]

[delivering] transmitting a signal [containing said video to] from an origination transmitter to a remote intermediate transmitter station, said signal containing [said] video [also containing] and an instruct signal which is operative at said at least one receiver station to instruct said at least one receiver station to at least one of generate and output a [local] locally generated portion of [a] said video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video; and

transmitting at least one control signal from said origination transmitter to said remote intermediate transmitter station before a specific time, wherein said at least one control signal is effective at said remote intermediate transmitter station to control communication of at least one of said video and said instruct signal.

[receiving, at said origination transmitter station, at least one control signal that, at the remote intermediate transmitter station, controls the communication of at least one of said video and said instruct signal; and

transmitting said at least one control signal from said origination transmitter before a specific time.]

81. **(Three Times Amended)** The method of claim 80, wherein said at least one control signal comprises information which, at [the] said remote intermediate transmitter station, identifies a [first] portion of an information transmission that contains said video, said method further comprising the step of:

transmitting from said origination transmitter a second control signal which, at said remote intermediate transmitter station, controls the communication of [at least a second] said portion of said information transmission.

82. (Unchanged) The method of claim 80, further comprising the step of transmitting one of said at least one control signal before transmitting said video to said remote intermediate transmitter station.

83. (Cancelled)

84. (Four Times Amended) A method of delivering a video presentation at at least one receiver station of a plurality of receiver stations each of which [includes a receiver, a signal detector, a processor, and an output device, and] is adapted to detect the presence of at least one signal, wherein at least one processor instruction comprises information content of separate ones of a plurality of discrete signals and said at least one receiver station is capable of providing said at least one processor instruction, said method comprising the steps of:

receiving video at a transmitter station;

delivering said video to a transmitter;

receiving a first discrete signal of said plurality of discrete signals at said transmitter station, wherein said first discrete signal is operative to provide said at least one processor instruction at said at least one receiver station by enabling said at least one receiver station to organize information contained in said first discrete signal with information contained in a second of said plurality of discrete signals, and said at least one processor instruction instructs said at least one receiver station to deliver a locally generated image for display in conjunction with said video, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction;

transferring said first discrete signal to said transmitter; and

transmitting said video and said first discrete signal to said at least one receiver station.

85. (Unchanged) The method of claim 84, wherein at least one of identification data and said first discrete signal is embedded in a signal containing said video.

86. (Unchanged) The method of claim 84, wherein said step of transmitting directs said video to said plurality of receiver stations at the same time and each of said plurality of receiver stations one of receives and processes said first discrete signal concurrently.

87. (Unchanged) The method of claim 84, wherein said video is encrypted.

88. **(Cancelled)**

89. (Unchanged) The method of claim 56, wherein said video output device includes a viewing screen which displays a first image received from said remote programming source and said step of displaying comprises replacing less than all of said first image with said locally generated image.

90. (Unchanged) The method of claim 89, wherein said locally generated image is overlaid on said first image.

91. **(Three Times Amended)** The method of claim 56, wherein said [interactive] video apparatus includes an audio receiver and ceases displaying said locally generated video image, said method further comprising the steps of:

receiving, at said audio receiver, audio which describes information displayed in said video presentation; and



outputting said audio at said [interactive] video apparatus before ceasing to display said locally generated video image.

92. (Cancelled)

93. (Twice Amended) A method of outputting a video presentation at a receiver station, said video presentation comprising a sequence of outputs and including, as a first of said sequence of outputs, a video image, said method comprising the steps of:

receiving at least one information transmission at said receiver station, said at least one information transmission containing at least one first discrete signal [and at least one control signal];

detecting said at least one first discrete signal [and said at least one control signal] in said at least one information transmission;

passing said detected at least one first discrete signal [and said detected at least one control signal] to at least one processor;

organizing information contained in said at least one first discrete signal at said receiver station with information contained in a second discrete signal [based on said at least one control signal];

passing at least one processor instruction from or within said at least one processor, said at least one processor instruction comprising said organized information from said step of organizing;

responding to said at least one processor instruction at said receiver station based on said step of passing said at least one processor instruction;

generating an image to replace only a portion of said video image by processing at least one [stored] user specific subscriber datum stored at said receiver station prior to said step of organizing based on said step of responding to said at least one processor instruction; and

outputting said video presentation to a user, said video presentation containing, firstly, said video image and, secondly, said generated image to replace said only said portion of said video image.

94. **(Once Amended)** The method of claim 93, wherein a receiver specific control signal is generated based on [at least one of said at least one first] a third discrete signal [and said at least one control signal], said method further including the step of:  
selecting said video image in response to said generated receiver specific control signal.

95. **(Once Amended)** The method of claim [93] 94, further comprising the step of controlling at least one of a receiver, a switch, a decryptor, an enabling device, a storage device, a computer, and a second output device based on said [at least one control signal] receiver specific control signal.

96. **(Unchanged)** The method of claim 93, wherein said generated image to replace said only said portion of said video image contains at least one receiver specific datum, said method further comprising the steps of:

receiving said video image from a remote station;  
generating said at least one receiver specific datum by processing information stored in a computer; and  
outputting at least one of a simultaneous and a sequential presentation of said received video image and said generated at least one receiver specific datum.

97. **(Unchanged)** The method of claim 93, further comprising assembling said at least one processor instruction based on said at least one first discrete signal.

98. (Unchanged) The method of claim 93, wherein said at least one first discrete signal includes only partial information of an identifier and said at least one processor instruction includes said identifier.

99. (Unchanged) The method of claim 93, wherein said at least one first discrete signal designates a specific user input to process, said method further comprising the step of generating output by processing said specific user input.

100. **(Once Amended)** The method of claim 93, further comprising the steps of:

receiving said at least one user specific subscriber datum; and  
passing said at least one user specific subscriber datum to a storage device.

101. **(Once Amended)** The method of claim 93[, further comprising the step of communicating to a remote station data evidencing at least one of (1) an availability, (2) a use, and (3) usage of at least one of (a) said at least one first discrete signal, (b) said at least one processor instruction, and (c) said video image] wherein each of a plurality of receiver stations stores a respective user specific subscriber datum in a file, each said file of a particular receiver station of said plurality of receiver stations being of a format identical to the files of the others of said plurality of receiver stations containing respective subscriber data of said others of said plurality of receiver stations.

102. (Unchanged) The method of claim 93, said method further including the step of:

communicating a request for information to a remote station.

103. **(Once Amended)** The method of claim 93, wherein a receiver specific control signal is processed based on [at least one of said at least one first] a third discrete signal [and said at least one control signal], said method further including the step of outputting said video image in response to said receiver specific control signal.

104. **(Twice Amended)** The method of claim 93, wherein a receiver specific control signal is processed based on [at least one of said at least one first] a third discrete signal [and said at least one control signal], said method further including the step of processing user input based on said receiver specific control signal.

105. **(Twice Amended)** The method of claim 93, wherein a receiver specific control signal is processed based on [at least one of said at least one first] a third discrete signal [and said at least one control signal] and said image to replace said only said portion of said video image is generated based on said receiver specific control signal.

106. **(Twice Amended)** The method of claim 93, wherein a receiver specific control signal is processed based on [at least one of said at least one first] a third discrete signal [and said at least one control signal], wherein said step of outputting said video presentation includes one of a simultaneous and a sequential presentation of said video image and said generated image based on said receiver specific control signal.

107. **(Unchanged)** The method of claim 93, wherein said video image is received in one of a television and a multichannel information transmission.

108. **(Unchanged)** The method of claim 107, wherein said one of a television and a multichannel information transmission comprises an analog television signal.

109. (Unchanged) The method of claim 93, wherein said receiver station includes a video monitor which outputs said video presentation, wherein said video presentation comprises a series of computer generated video display outputs, and wherein by processing data said at least one processor delivers said generated image to replace said only said portion of said video image at said video monitor in one of said series of computer generated display outputs, said method further comprising the step of receiving said data from a remote data source.

110. (Once Amended) A method of outputting a video presentation at at least one of a plurality of receiver stations [each of which includes a receiver, a signal detector, a processor, an output device,] each of said plurality of receiver stations being adapted to [detect the presence of at least one control signal and programmed to] process [at least one] a plurality of processor instructions, said method comprising the steps of:

receiving at at least one transmitter station at least a first discrete signal containing information, wherein (i) [said at least one processor instruction] a first of said plurality of processor instructions comprises information organized from said information contained in said first discrete signal and information contained in a second discrete signal, (ii) said [at least one] first processor instruction is effective to program said at least one of said plurality of receiver stations to be able to respond to an additional processor instruction of said plurality of processor instructions subsequently received by said at least one of said plurality of receiver stations, said additional processor instruction being effective at said at least one of said plurality of receiver stations to [generate and] output only a portion of said video presentation, said portion being based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said first processor instruction, and (iii) said [at least one] first processor instruction has at said at least one of said plurality of receiver stations a target processor to process data;

transferring said at least said first discrete signal to at least one transmitter, and  
transmitting a first information signal including said first discrete signal;

receiving said [at least one control signal] additional processor instruction at said  
at least one transmitter station[, wherein said at least one control signal is operative at  
said at least one of said plurality of receiver stations to organize said information in said  
first and second discrete signals into said at least one processor instruction]; and

transferring said [at least one control signal] additional processor instruction to  
said at least one transmitter, and transmitting [at least one] a second information  
transmission including said additional processor instruction [containing said at least said  
first discrete signal and said at least one control signal].

111. (Unchanged) The method of claim 110, wherein one of a combined and a  
sequential output of a video image and said only said portion of said video presentation is  
delivered at said output device of said at least one of said plurality of receiver stations,  
said method further comprising the steps of

receiving said video image at said at least one transmitter station; and  
transmitting said video image to said at least one of said plurality of receiver  
stations.

112. (Twice Amended) The method of claim 110, wherein at least one of (i)  
[said at least] said first information signal includes identification data pertaining to said  
video presentation and (ii) said at least said first discrete signal is embedded in a non-  
visible portion of a signal containing said video image.

113. (Twice Amended) The method of claim 110, wherein said portion of  
said video presentation is displayed at said at least one of said plurality of receiver  
stations and said at least one processor instruction programs said processor at least one of

(1) to output at least two of video, audio, and text at least one of simultaneously and sequentially with said portion of said video presentation and (2) [to process a viewer reaction to said portion of said video presentation and (3)] to select information that supplements said portion of said video presentation.

114. **(Once Amended)** The method of claim 110, wherein [at least one of (i)] an assembler at said at least one of said plurality of receiver stations organizes said information in said first and second discrete signals into said at least one processor instruction [and (ii) said at least one control signal contains at least a portion of said at least one processor instruction].

115. **(Cancelled)**

116. **(Twice Amended)** A method of delivering a video presentation at one receiver station of a plurality of receiver stations, [each of which includes a receiver, a signal detector, a processor, an output device, and with] each of said plurality of receiver stations being adapted to detect the presence of at least one signal, wherein said one receiver station displays video received at said one receiver station from a remote intermediate transmitter station and is adapted to display a locally generated image in conjunction with said video [in response to] based on at least one processor instruction, said method comprising the steps of:

[receiving] transmitting a first discrete signal [at] from an origination transmitter [station] to said remote intermediate transmitter station, [and delivering said first discrete signal to at least one origination transmitter,] wherein said at least one processor instruction is comprised of information contained in said first discrete signal and information contained in a second discrete signal, and wherein one of said one receiver station and said remote intermediate transmitter station is adapted to organize said

information contained said first discrete signal with said information contained in said second discrete signal; and

[receiving] transmitting at least one control signal from said origination transmitter station to said remote intermediate transmitter station before a specific time, [which] wherein,

(i) when said remote intermediate transmitter station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said at least one processor instruction, and

(ii) when said one receiver station is adapted to organize, said at least one control signal is effective at said remote intermediate transmitter station to control communication of said first discrete signal.

[at said remote transmitter station operates to control the communication of one of said first discrete signal and said at least one processor instruction;

transferring said at least one control signal to said at least one origination transmitter before a specific time; and

transmitting from said at least one origination transmitter said first discrete signal and said at least one control signal.]

117. **(Twice Amended)** The method of claim 116, wherein at least one of a combined and a sequential output of a video image and a portion of said video presentation is delivered at said output device of said one receiver station of said plurality of receiver stations, said method further comprising the steps of:

receiving said video image at [at least one] said remote intermediate transmitter station; and

transmitting said video image to said one receiver station of said plurality of receiver stations.



118. (Unchanged) The method of claim 116, further comprising the step of embedding said at least one control signal in an information transmission containing said first discrete signal before transmitting said first discrete signal to said remote intermediate transmitter station.

119. **(Cancelled)**

120. (Unchanged) The method of claim 116, further comprising the step of: transmitting said second discrete signal.

121. (Unchanged) The method of claim 116, wherein said remote transmitter station transmits encrypted video to said one receiver station of said plurality of receiver stations.

122. (Unchanged) The method of claim 116, wherein a television program comprises a series of computer generated images, wherein at least one of said plurality of receiver stations includes a television monitor which displays said video presentation in said television monitor to display only a portion of said video presentation in one of said series of computer generated images.

123. **(Twice Amended)** A method of delivering a video presentation at at least one of a plurality of receiver stations, [each of which includes a receiver, a signal detector, a processor, an output device, and with] each of said plurality of receiver stations being adapted to detect the presence of at least one signal, wherein said video presentation includes a first image which is received at said at least one of said plurality of receiver stations from a [first] remote transmitter station, and wherein [one of a code

and] an identifier is operative at said at least one of said plurality of receiver stations to designate [one of] a second image [and a device], said method comprising the steps of:

receiving at [at least one of] said [first] remote transmitter station [and a second remote transmitter station] at least one instruct signal [which is effective at said at least one of said plurality of receiver stations to generate locally and output said second image of said video presentation for delivery in conjunction with said first image];

transferring said at least one instruct signal to at least one transmitter;

receiving at least one first discrete signal and at least one control signal at said [at least one of said first] remote transmitter station [and said second remote transmitter station], said at least one first discrete signal including only partial information of said [one of a code and an] identifier and said at least one control signal operative to provide said [one of a code and an] identifier and designate at said at least one of said plurality of receiver stations by organizing said partial information with information contained in a second discrete signal at said at least one of said plurality of receiver stations, wherein said [one of a code and an] identifier designates said [one of said] second image [and said device] at said at least one of said plurality of receiver stations and is operative to cause said at least one instruct signal to be effective at said at least one of said plurality of receiver stations to generate and output said second image of said video presentation for delivery in conjunction with said first image, wherein said second image is based on user specific data stored at said at least one of said plurality of receiver stations prior to said organizing of said identifier; and

transferring said at least one first discrete signal and said at least one control signal to said at least one transmitter, said at least one transmitter transmitting at least one information transmission containing said at least one instruct signal, said at least one first discrete signal, and said at least one control signal to said at least one of said plurality of receiver stations.

124. **(Twice Amended)** The method of claim 123, wherein at least one of a combined and a sequential output of a video image and only a portion of said video presentation is delivered at said output device of said at least one of said plurality of receiver stations, said method further comprising the steps of

receiving said video image at said [at least one of said first remote transmitter station and a second] remote transmitter station; and

transmitting said video image to said at least one of said plurality of receiver stations.

125. **(Unchanged)** The method of claim 123, wherein at least one of said at least one instruct signal and said at least one control signal is embedded in a non-visible portion of at least one of a video signal, a multichannel broadcast signal, and a cablecast signal that contains video.

126. **(Unchanged)** The method of claim 123, wherein said at least one transmitter transmits said at least one instruct signal, said at least one first discrete signal, and said at least one control signal in a data transmission.

127. **(Twice Amended)** The method of claim 123[, wherein a switch at said at least one of said first remote transmitter station and said second remote transmitter station communicates at least one first signal selectively from a receiver and one of a memory and a recorder to said at least one transmitter, said method further comprising the step of:

detecting said at least one second signal which is effective at said at least one of said first remote transmitter station and said second remote transmitter station to instruct communication] further comprising the step of transmitting data that enable said at least one of said plurality of receiver stations to determine that said second image is complete.

128. (Cancelled)

129. (Unchanged) The method of claim 123, further comprising the step of:  
transmitting to said at least one of said plurality of receiver stations at least one  
datum that designates one of a time and a channel of transmission of said at least one  
instruct signal.

130. (Cancelled)

131. (Cancelled)

132. (Cancelled)

133. (Cancelled)

134. (Cancelled)

135. (Cancelled)

136. (Cancelled)

137. (Cancelled)

138. (Cancelled)

139. (Cancelled)

140. (Unchanged) The method of claim 123, further comprising the step of transmitting to said at least one of said plurality of receiver stations said at least one control signal to cause said at least one of said plurality of receiver stations to communicate said at least one instruct signal from a tuner to said processor.

141. (Twice Amended) The method of claim 123, wherein (i) said video presentation comprises a television program [comprises a series of computer generated images, wherein]; and (ii) said at least one of said plurality of receiver stations includes a television monitor which displays said [video presentation, said method further comprising the step of transmitting said series of computer generated images] television program.

142. (Cancelled)

143. (Cancelled)

144. (Cancelled)

145. (Cancelled)

146. (Cancelled)

147. (Cancelled)

148. (Cancelled)

149. (Cancelled)

150. (Cancelled)

151. (Cancelled)

152. (Cancelled)

153. (Cancelled)

154. (Cancelled)

155. (Cancelled)

156. (Cancelled)

157. (Cancelled)

158. (Cancelled)

159. (Cancelled)

160. (Cancelled)

161. (Cancelled)

162. **(Twice Amended)** A method of delivering a video presentation at at least one receiver station of a plurality of receiver stations, [each of which includes a receiver, a signal detector, a processor, and an output device,] wherein said at least one receiver station is programmed to process code and adapted to detect at least a first of a plurality of discrete signals, said code comprised of information contained in [each] at least two of said plurality of discrete signals, said method comprising the steps of:

- receiving a video image at a transmitter station;
- delivering said video image to a transmitter;
- receiving said at least said first of said plurality of discrete signals at said transmitter station, wherein said at least said first of said plurality of discrete signals enables said at least one receiver station to [process said code by organizing] organize information contained in said at least said first of said plurality of discrete signals with information contained in a second of said plurality of discrete signals to provide said code and, [thereby, to respond to said code, and] wherein said code enables said at least one receiver station to [generate or] be able to identify a [local] locally generated image and output said [local] locally generated image in conjunction with said video image, said locally generated image being based on user specific data stored at said at least one receiver station prior to said organizing of said code;
- transferring said at least said first of said plurality of discrete signals to said transmitter; and
- transmitting said video image and said at least said first of said plurality of discrete signals from said transmitter station to said at least one receiver station.

163. **(Unchanged)** The method of claim 162, wherein said at least said first of said plurality of discrete signals comprise a portion of identification data and is embedded in a signal containing said video image.

164. (Unchanged) The method of claim 162, wherein said step of transmitting directs said video image to said plurality of receiver stations at the same time and each of said plurality of receiver stations receives or responds to said code concurrently.

165. (Unchanged) The method of claim 162, wherein said step of transmitting directs at least said video image to said at least one receiver station of said plurality of receiver stations in a television or other electronic transmission.

166. (Unchanged) The method of claim 162, further comprising the steps of receiving said video image at a receiver in said transmitter station, communicating said video image from said receiver in said transmitter station to a memory location, and storing said video image at said memory location for a period of time prior to said delivering said video image to said transmitter.

167. **(Once Amended)** A method of outputting a video graphic presentation at a receiver station including:

receiving, from a remote transmitter station, a transmission that contains at least a first discrete signal of [downloadable] code and a first completed full-screen video graphic image, said first completed full-screen video graphic image containing at least one graphic image;

passing said received first completed full-screen video graphic image to a video monitor for delivery to a user, said video monitor having a viewing screen;

displaying said first completed full-screen video graphic image at said video monitor, said displayed first completed full-screen video graphic image filling the entire surface area of said viewing screen;

detecting said at least a first discrete signal of said [downloadable] code;



passing said at least a first discrete signal of said [downloadable] code to at least one processor;

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying, at said video monitor, said second completed full-screen video graphic image, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only a portion of said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image,

wherein said method delivers said video graphic presentation.

168. (Unchanged) The method of claim 167, further comprising a step of generating said passed only a portion of said second completed full-screen video graphic image in accordance with said at least one processor instruction.

169. (Unchanged) The method of claim 167, further comprising the steps of receiving audio from said remote transmitter station, and outputting said audio at a speaker during said video graphic presentation.

170. (Unchanged) The method of claim 169 wherein said audio describes information displayed in said video graphic presentation.

171. **(Twice Amended)** A method of delivering a video graphic presentation comprising a first completed full-screen video graphic image and a second completed full-screen video graphic image at at least one receiver station of a plurality of receiver stations, wherein each of [which] said plurality of receiver stations (a) includes a receiver, a signal detector, a processor to execute at least one processor instruction, and a video monitor that has a viewing screen, (b) is adapted to detect the presence of one or more control signals, and (c) is programmed to process said at least one processor instruction, wherein said at least one processor instruction instructs said at least one receiver station to pass only a portion of [a] said second completed full-screen video graphic image to said video monitor, wherein said second completed full-screen video graphic image fills the entire surface area of said viewing screen when displayed at said video monitor and contains said only a portion of said second completed full-screen video graphic image and only a portion of [a] said first completed full-screen video graphic image, wherein said first completed full-screen video graphic image fills the entire surface area of said viewing screen when displayed at said video monitor, and wherein said second completed full-screen video graphic image contains at least one graphic image, said method comprising the steps of:

receiving at a transmitter station at least one discrete signal that contains only partial information of said at least one processor instruction [and serves as a basis for providing said at least one processor instruction at said at least one receiver station];

transferring said at least one discrete signal to a transmitter;

receiving said one or more control signals at said transmitter station, wherein said one or more control signals are operative at said at least one receiver station to provide

said at least one processor instruction by causing said at least one receiver station to organize said partial information with information contained in a second discrete signal, said at least one processor instruction directing, to said video monitor, said only a portion of said second completed full-screen video graphic image, said viewing screen displaying said only a portion of said second completed full-screen video graphic image in conjunction with said only a portion of said first completed full-screen video graphic image, wherein said only a portion of said second completed full-screen video graphic image is based on user specific data stored at said at least one receiver station prior to said organizing of said at least one processor instruction;

transferring said one or more control signals to said transmitter; and  
transmitting a transmission comprising said at least one discrete signal and said one or more control signals,  
wherein said method delivers said video graphic presentation.

172. (Unchanged) The method of claim 171 further comprising a step of transmitting at least a portion of said first completed full-screen video graphic image.

173. (Unchanged) The method of claim 172, wherein said first completed full-screen video graphic image also contains said at least one graphic image, said method further comprising a step of transmitting said at least one graphic image.

174. (Unchanged) The method of claim 171 further comprising a step of transmitting audio that states a significance of information displayed in said video graphic presentation.

175. (**Twice Amended**) A method of delivering a video graphic presentation at at least one receiver station of a plurality of receiver stations, each receiver station of

said plurality of receiver stations being adapted to detect the presence of signals and including [a receiver, a signal detector, a processor, and] a video monitor, said video monitor having a viewing screen, said method comprising the steps of:

[receiving,] transmitting from an origination station transmitter to a remote intermediate transmitter station [at an origination transmitter station,] a first completed full-screen video graphic image that fills the entire surface area of said viewing screen when displayed at said video monitor, said first completed full-screen video graphic image to be transmitted by a remote intermediate transmitter station and displayed at said video monitor;

[delivering a signal to an] transmitting from said origination station transmitter to said remote intermediate transmitter station, [said signal containing said first completed full-screen video graphic image and] at least one discrete signal that contains information comprising only a part of at least one processor instruction, wherein said at least one processor instruction is organized from information contained in said at least one discrete signal with information contained in a second discrete signal, wherein [that instructs] said at least one receiver station [to generate] generates and [output] outputs only a portion of a second completed full-screen video graphic image based on said at least one processor instruction, said second completed full-screen video graphic image filling the entire surface area of said viewing screen when displayed at said video monitor and containing said only a portion of a second completed full-screen video graphic image in conjunction with only a portion of said first completed full-screen video graphic image, wherein at least one of said first completed full-screen video graphic image and said second completed full-screen video graphic image contains at least one graphic image;

[receiving, at said origination transmitter station,] transmitting one or more control signals from said origination transmitter to said remote intermediate transmitter station, wherein,

(1) when said remote intermediate transmitter station is adapted to organize said at least one processor instruction, said one or more control signals are effective at said remote intermediate transmitter station to control communication of said first completed full-screen video graphic image and said at least one processor instruction, and

(2) when said at least one receiver station is adapted to organize said at least one processor instruction, said one or more controls signals are effective at said remote intermediate transmitter station to control communication of said first completed full-screen video graphic image and said at least one discrete signal.

[said one or more control signals operate at said remote intermediate transmitter station to control communication of at least one of (i) said first completed full-screen video graphic image and said at least one discrete signal, and (ii) said at least one processor instruction; and

transmitting, from an origination transmitter, a transmission that contains said at least one discrete signal, said first completed full-screen video graphic image and, before a specific time, said one or more control signals,

wherein said method delivers said video graphic presentation.]

176. (Unchanged) The method of claim 175, further comprising a step of transmitting audio that describes information displayed in said video graphic presentation.

177. (Cancelled)

178. (Cancelled)

179. **(Once Amended)** A method of outputting a video graphic presentation at a receiver station including:

receiving, from a remote transmitter station, a transmission that contains at least a first discrete signal and a series of video images that each contain at least one graphic image;

passing said received series of video images to a video monitor for delivery to a user, said video monitor having a viewing screen;

displaying, at said video monitor[, a first completed full-screen video graphic image based on] said series of video images, said series of video images including a first completed full-screen video graphic image, and said displayed first completed full-screen video graphic image filling the entire surface area of said viewing screen;

detecting said at least a first discrete signal;

passing said at least a first discrete signal to at least one processor;

organizing information contained in said at least a first discrete signal at said receiver station with information contained in a second discrete signal based on at least one control signal;

responding to at least one processor instruction at said receiver station, said at least one processor instruction comprising said organized information from said step of organizing;

passing, to said video monitor based on said step of responding to said at least one processor instruction, only a portion of a locally generated second completed full-screen video graphic image, wherein said only a portion of said locally generated second completed full-screen video graphic image is based on user specific data stored at said receiver station prior to said step of organizing; and

displaying said second completed full-screen video graphic image at said video monitor, said displayed second completed full-screen video graphic image filling the entire surface area of said viewing screen and containing said passed only said portion of

said second completed full-screen video graphic image and only a portion of said first completed full-screen video graphic image,

wherein said method delivers said video graphic presentation.

180. **(Cancelled)**

181. (Unchanged) The method of claim 179, further comprising the steps of receiving audio from said remote transmitter station, and outputting said audio at a speaker during said video graphic presentation.

182. (Unchanged) The method of claim 181 wherein said audio states a significance of information displayed in said video graphic presentation.

**APPENDIX B**

**Zaboklicki, DE 2,904,981 Certified Translation**





## AFFIDAVIT OF ACCURACY

I, Nathan J. Richards, hereby certify that the following is, to the best of my knowledge and belief, a true and accurate translation of the following documents from German into English.

Nathan J. Richards  
TransPerfect Translations, Inc.  
1101 Pennsylvania Ave., NW  
Washington, DC 20004

Sworn to before me this  
28<sup>th</sup> day of November 2001.

Signature, Notary Public

PAUL D. RALSTON  
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Qualified in Queens County  
Commission Expires May 3, 2003

Stamp, Notary Public

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[illegible] Title: Method for Transmitting Television Signals and System for  
Implementing Said Method

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Request for examination pursuant to § 28b Patent Law has been filed.

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Claims

1. Method for transmitting television signals in which a broadcast is transmitted at least partly in digital form, characterized in that a local central processor switches the data selector circuits for parts of the broadcast as a result of at least two consecutive answers by the television viewer and due to the centrally transmitted digital processing program.
2. Method as claimed in Claim 1, characterized in that in the television studio a broadcast is compiled with excess information for branching and with a processing program for the local central processors.

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3. Method as claimed in Claim 1, characterized in that the centrally transmitted digital processing program is directed into memories of the controlling central processors in the television cable networks and into memories of the local central processors of television receivers with direct reception.
4. Method as claimed in Claim 1, characterized in that output data of the individual television viewer is entered into the memory of the local central processor.
5. Method as claimed in Claim 1, characterized in that answers of the television viewer are entered into the memory of the local central processor.
6. Method as claimed in Claim 1, characterized in that the centrally transmitted identification data of the individual fragments of a broadcast are entered in the memory of the local central processor.
7. Method as claimed in Claim 1, characterized in that the output signals of the local central processor turn on and off the audio signals of at least one audio channel with corresponding information requested, respectively, by the individual television viewer.

8. Method as claimed in Claim 1, characterized in that the individual additional audio information in the television receiver in the infrared band is directed to the individual infrared receivers in which, as a function of the viewer's answer, the information is selected and the selected information is forwarded to the infrared receiver arranged next to the ear phones on the head of the corresponding television viewer.
9. Method as claimed in Claim 1, characterized in that the output signals of the local central processor switch the reception from moving pictures to the reception of alphanumeric and graphic characters and vice versa.
10. Method as claimed in Claim 1, characterized in that the output signals of the local central processor switch the selector circuits for the identification data of the individual fragments of the broadcast.
11. Method as claimed in Claim 1, characterized in that the output signals of the local central processor switch the television channels.
12. Method as claimed in Claim 1, characterized in that the output signals of the local central processor turn on the information of the local source.

13. Method as claimed in Claim 1, characterized in that the output signals of the local central processor turn on the recording of the necessary information for the local information source.
14. Method as claimed in Claim 1, characterized in that the output signals of the local central processor turn on the recording of the selected information in the local printer.
15. Method as claimed in Claim 1, characterized in that the output signals of the local central processor enter in the viewfinder of the local camera the contours of the figure overlaid on the centrally transmitted picture, wherein due to the overlay, a broadcast is obtained with participation of an actor, who remains at home under the direction of the director from the television studio during the given broadcast.
16. Method as claimed in Claim 1, characterized in that the television viewer's answer is entered into the memory of the local central processor of the television receiver with direct reception and is output in parallel and converted into telephone signals which comprise a first signal in the form of a code of the new telephone service for transmitting the television viewer's answers, analogous to the known code of conference connections, and a second signal as the answer, wherein these signals are transmitted via the subscriber telephone line to the memory of the local central processor at the telephone exchange, irrespective of whether the

corresponding subscriber telephone line is free or occupied by a telephone connection.

17. Method as claimed in Claim 1, characterized in that the television viewers' answers from an apartment building are multiplexed and supplied via a subscriber telephone line to the local memory of the central processor at the telephone exchange.
18. Method as claimed in Claim 1, characterized in that the answers from viewers that are connected neither to a television cable network nor to the telephone network are registered on magnetic cards suitable for shipping through the mail to the memory of the central processors.
19. Method as claimed in Claim 1, characterized in that the viewers' answers received in the memories of the local central processors in the television cable networks and in the memories of the local central processors at the telephone exchanges are counted and forwarded to the television studio in the form of statistical data, where they are used to correct the transmitted broadcast and the next broadcast from the series.

20. Device for implementing the method as claimed in at least one of the preceding claims, with equipment to transmit at least a portion of the information in digital form, characterized in that, on the receiver side, an input of the local central processor (6) is connected with the circuit for entering the television viewer's answers (2) and a second input with the circuit (3) for entering the centrally transmitted digital processing program and the output of the central processor with a data selector circuit (8).
21. Device as claimed in Claim 20, characterized in that a circuit (35) to enter initial data of the television viewers is connected to the input of the central processor (6).
22. Device as claimed in Claim 20, characterized in that a circuit (34) to enter the television viewers' answers is connected to the input of the central processor (6).
23. Device as claimed in Claim 20, characterized in that a circuit (40) to prefilter the identification data is connected to the input of the central processor (6).
24. Device as claimed in Claim 20, characterized in that the circuit (43) to turn on the audio signal is connected to the output of the central processor (6).



25. Device as claimed in Claim 20, characterized in that the central processor (6) is connected to an infrared receiver (16) and a circuit (20) for turning on the audio signals, which is connected to the infrared receiver (16).
26. Device as claimed in Claim 20, characterized in that the output of the central processor (6) is connected to the multiplex circuit (45).
27. Device as claimed in Claim 20, characterized in that the output of the central processor (6) is connected to a data selector circuit (41).
28. Device as claimed in Claim 20, characterized in that the output of the central processor (6) is connected to the circuit (27) to switch the television channels to select the corresponding fragments of the broadcast.
29. Device as claimed in Claim 20, characterized in that the output of the central processor (6) is connected to the local information source (50).
30. Device as claimed in Claim 20, characterized in that the output of the central processor (6) is connected to the multiplex circuit in the viewfinder of a camera (51).

31. Device as claimed in Claim 20, characterized in that the circuit (34) to enter a television viewer's answers is connected via a control circuit (32) to a prefix generator (29), a subscriber dial number generator (30) and a circuit (31) to generate the television viewer's answer, the signals of which are multiplexed and input into the subscriber telephone line.
32. Device as claimed in Claim 20, characterized in that the circuit (34) to input a television viewer's answers is connected to a recording device (33) in which the television viewer's answers are recorded on a magnetic card.
33. Device as claimed in Claim 20, characterized in that the central processors in the television cable networks and the telephone exchanges are connected to a centralized central processing unit or a central processor from which the statistical data of the television viewers' answers is supplied to the monitor at the television studio.

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Warsaw, Poland      February 9, 1979

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Method for Transmitting Television Signals and System for  
Implementing Said Method

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The invention relates to a method for transmitting television signals, particularly to implement interactive television viewing, which makes possible the reception of specially programmed television broadcasts.

Known systems with devices for the reception of television broadcasts and communication between the television viewers and the television studio require the use of a cable network. Such a system, based on the

television viewers' answers, e.g., to test questions that are transmitted in the frequency band of between 0 and 30 MHz, sends the individual television viewer's corresponding information on one of the channels in the frequency band of 30 to 300 MHz. The data transmission is centrally controlled by means of a central processor. Such a system is described by E. B. Carne, G. Aaronson, M. Chaurierre in "Interactive Television in the United States," *Sylvania Videon*, 1975 No. 20, pages 22 – 24.

Another known system is based on the local replay of a correspondingly programmed broadcast from a video disk memory or carrier in which a central microprocessor is provided in addition to control the switching of the tracks from which the information is read. Switching depends on the television viewer's answer. (J. L. Bennion, E. W. Schneider: "Interactive Videodiscs Systems for Education," *Journal of the SMPTE*, December 1975, Volume 84, No. 12, pages 949 – 953.

Furthermore, a videotext system has been developed by means of which centrally transmitted texts and simple images are reproduced on the screen of a television receiver. Although this system offers the television viewer the possibility of selecting a corresponding page of a text out of a plurality of consecutive pages sent, it does not allow the viewer to communicate with the transmitter (interactive reception of the broadcast). Modifications in the videotext transmission system

were described by R. T. Russell in "Teletext Decoder Modifications, Wireless World," January 1978, pages 71 – 72.

The object of the invention is to create a method and a system that permit mass reception of interactive television broadcasts in which the television viewers can answer with "yes" or "no" or a selection from a number of predefined alternatives and can add individual supplements, explanations or other information corresponding to these answers.

According to the invention, this object is attained by the subject of the main claim. Further embodiments are set forth in the dependent claims.

To attain the aforementioned object, modifications on the transmit and the receive side of the system are required. On the transmit side, special broadcasts are prepared involving a significant amount of labor, which have excess data for branching, together with a digital processing program for the individual data fragments that are provided in the broadcast. These broadcasts are transmitted to a plurality of viewers, e.g., by means of space stations, amplifying television stations and by means of local cable television systems with central processor control.

On the receive side, according to the invention, a local central processor is provided in the private television receiver, which switches the data selector systems based on the television viewer's answer and based on the centrally transmitted digital processing program for the broadcast segments (broadcast fragments).

According to the invention, the broadcasts that are transmitted to the greatest number of television viewers, e.g., sports and entertainment programs, i.e., broadcasts that are typically viewed by more than one person on a single television set, are provided with additional information in the form of additional audio signals which are transmitted analogously to the known signals of foreign language translations on audio channels or radio channels, which are provided in addition to the video channel. On the receiver side, according to the invention, the separate variants of the additional information are transmitted in the form of acoustic or audio signals in the television receiver in the infrared band to the individual infrared receivers, which are arranged in the known infrared transmitters for remote control of the television receivers. In these transmitters, the keypad is used in addition in order to enter the television viewer's answers. The central processor, which is embodied, for instance, as an integrated microprocessor having the function of a remote control signal encoder, injects at certain time intervals the information that corresponds to the respective television viewer based on the digital processing program. This information is again forwarded in the

infrared band to the infrared receiver arranged next to the ear phones. Additional information in the form of alphanumeric or graphic characters is used less frequently in this type of broadcasts, i.e., only in an area where the attention of other persons using the same television receiver is not unduly distracted.

Broadcasts for a smaller viewer group, such as educational and popular science broadcasts, are provided with additional information in the form of both audio signals and video signals. To this end, the signals of the local central processor switch from the reception of moving pictures to the reception of alphanumeric and graphic characters, likewise the identification data selector circuits for the individual parts (fragments) of the broadcast. The television channels are also switched if the individual fragments of a broadcast can be transmitted in more than one television channel. Furthermore, the output signals of the central processor switch the recording and replay of the information in the local information source.

Another feature of the system according to the invention is the television viewer's participation in the centrally transmitted broadcast in such a way that the output signals of the local central processor insert the contours of the persons designated by the director in the viewfinder of the television camera. The figure of the viewer contained in these contours is overlaid on the main content.

In broadcasts in which an answer or an opinion of the television viewers is desired (in marketing, commercial ordering, in many educational broadcasts, and television quizzes) the viewer's answer is entered into the memory of the local central processor or is output in parallel and converted into telephone signals, i.e., into a special signal—the new service code in the form of a prefix analogous to the known code for conference connections—and the signal of the subscriber's dial number and of the subscriber's answer. These signals are introduced into the subscriber telephone line irrespective of whether this line is currently free or occupied by a telephone connection. An exception hereto is the short time span of ringing signal transmission (transmission of the dialing signal) during which the answer is delayed. These answers, after statistical processing, are forwarded to the monitor at the television studio.

Preferred embodiments of the invention will now be described in greater detail with reference to the drawing in which

Fig. 1 is a block diagram of the receiving devices of a television system that operates digitally at least in part,

Fig. 2 is a block diagram of a system that is modified compared to Fig. 1 with a receiver for additional information in the form of audio signals if a



broadcast is viewed by more than one person on a television receiver,

Fig. 3 is a block diagram of a television receiver system with a text decoder to receive digital data,

Fig. 4 is a block diagram of a circuit that transmits a viewer's answers to a memory of the central processor,

Fig. 5 shows transmitters for infrared rays for the circuit according to Fig. 2.

The block diagram depicted in Fig. 1 comprises a circuit 2 to enter a television viewer's answers and a circuit 3 to input a digital processing program. In addition, a circuit 4 is provided to prefilter the information for television viewers as well as a control circuit 5. A central processing unit or processor 6, e.g., an integrated microprocessor, supplies the digital processing program, a television viewer's answers and the subsequent identification data of the individual parts or fragments of a broadcast to a memory 7 (RAM). The output signals of the central processor 6 control a data selector circuit 8. Provided in addition is a circuit 9 to forward the television viewer's answers to a memory (not depicted in Fig. 1) of an external central processing unit, i.e., an external processor. A circuit 10 serves

for conversion of the video signals and for picture illumination. 11 designates a circuit for audio signal recovery.

The block diagram shown in Fig. 2 comprises the central processor 6, which controls an audio signal circuit element 20 in at least one additional audio channel.

12 identifies a keypad and 16 an infrared transmitter. Reference number 14 designates a remote control signal (output of the infrared transmitter 13). Digital data is supplied to an infrared receiver 16. 17 identifies the digital data output of the infrared receiver, while the reference number 18 indicates at least one audio channel. Command 19 represents a command for an audio signal of a corresponding channel, which is supplied to a circuit 20 to add the selected audio channel. 21 identifies an infrared transmitter, which outputs an audio signal in the infrared range with selected additional information. The circuit depicted in Fig. 2 embodies a transmitter for remote control and is identified by 23 while block 24 at the bottom of Fig. 2 represents a retransmission circuit for audio transmission when the selected audio signal is turned on for a time period that is determined by the central processor 6.

In the circuit shown in Fig. 3, a central processor 6 with input and output circuits and with a memory is connected to a television receiver 54 with at least one additional audio channel and to a

videotext decoder 56 with one additional data output (hamming decoder). The central processor 6 controls the turning-on or adding-on of the additional audio signals and the turning-on of the additional or exchanged fragments of the video signal content or the video picture content. 25 identifies the supplied video signal. 26 is a control circuit and 27 is the line to switch television channels to a prefiltering of the corresponding fragments of a broadcast. A circuit 34 serves for the remote input of a television viewer's answers and a circuit 35 for the input of the television viewer's initial data. A circuit block 36 causes the digital data of the video signal to be prefiltered. 37 designates a printer. In addition, a multiplexer circuit 38 is provided. The central processor 6 has input circuits 39, which are coupled to a circuit 40 for prefiltering digital processing programs and the identification data of individual broadcast fragments with the input circuits 39 [sic]. A circuit 41 forms a data selector circuit or a circuit to compare the addresses of text information, e.g., page numbers. The local central processor 6 switches the data selector circuits 41 as a result of a television viewer's answers and the digital processing programs, which are directed through the output circuit of the central processor 49. If the addresses match, the subsequently input data is entered in a RAM 44. 42 identifies a generator for alphanumeric and graphic characters and 43 a circuit for adding or operating additional audio channels of a television receiver 54, which has at least one additional audio channel—as previously mentioned. In addition, a multiplexer circuit 45 is assigned to the receiver 54.

The text decoder identified by 56 furthermore comprises a circuit 47 to prefilter the characters to control the illumination of the image and an output circuit 48 for characters. 49 identifies the output circuit of the central processor 6. Block 50 forms a local information source, for instance a disk memory or the like to store video signals. A multiplexer circuit 51 in the viewfinder of a television camera serves to project the graphic characters onto the picture of the receiver 54 of the [illegible], which is furthermore connected to a receiver 52 for a remote control signal. The remote control signal receiver 52 furthermore supplies signals 53 to television receiver 54 to control it. The receiver 54 finally comprises an output circuit 55 for video signals. A circuit 57 in the decoder 56 serves to prefilter the control signals or commands (e.g., do not illuminate!)

Reference is now made to the block diagram shown in Fig. 4. In this circuit, the viewer's answers are converted into telephone signals with a multifrequency code and are consecutively transmitted over a telephone line unless the telephone subscriber selects a dial number of another telephone subscriber. The circuit shown in Fig. 4 comprises a control circuit 32, which is provided with a prefix generator 29 for a transmission announcement of the television viewer's answer, with a subscriber dial number generator 30, and with a circuit 31 to generate the television viewer's answer. Circuit 34 for the remote input of a television viewer's answers is connected to circuits 31 and 32. 28

designates the control signal for the delay of the answer, which represents the short time span during which the ringing signal is transmitted. During this time span the answer is delayed. The multiplexer is identified by 38 and supplies a signal for the subscriber telephone line 33.

Fig. 5 is a schematic representation of the receiver system depicting a viewer who is watching a broadcast on the receiver 54 together with other viewers. The viewer, through ear phones 64, hears the audio signal transmitted in a first audio channel and additional information in audio form at corresponding time intervals. During the reception of the additional information there is either silence in the first audio channel or the voices in the other two channels differ substantially from one another, e.g., they can be a male and a female voice. Due to divided attention such information can be absorbed, analogously to remarks by occupants of the house, prompting in school, or the like. A photo element 63 is blocked with respect to an infrared source 60, or is correspondingly dimmed while ready to receive an infrared source 62. A unit 58 contains the remote control transmitter 23 and the audio retransmitter 24. Infrared rays 59 transmit remote control signals as well as signals corresponding to a television viewer's answers. These signals correspond to the answers input via device 34. Infrared rays 60 serve to transmit signals of at least one additional audio channel with additional information. A photo element 61 receives the signals 60 in audio form. Infrared rays 62 transmit the audio signals with

corresponding variation of the additional information. The photo element 63 receives the audio signals 62. The ear phones for the viewer are identified by 64.

The described method and the system to implement said method make possible interactive television viewing and a [illegible], thus permitting interactive entertainment, learning, marketing, opinion surveys, television quizzes and discussions with television viewers.

In the method according to the invention, the data selector circuit is switched by the local central processor as a result of at least two successive answers of a television viewer and due to the centrally transmitted digital processing programs for the fragments or segments of a broadcast.

On the receiver side the system comprises a local central processor 6, one input of which is connected to a circuit 2 to input the television viewer's answers and the second input of which is connected to a circuit for introducing the digital processing program for parts of the broadcast, which is identified by 8.

For the further structure of the system according to the invention, express reference is made to the circuit connections of the individual blocks in Fig. 1 to 4.

List of Reference Numbers

1. Video signal
2. Circuit to input the television viewer's answers
3. Circuit to input the digital manipulation program / telesoftware /
4. Circuit to prefilter the information for television viewers
5. Control circuit
6. Central processing unit / processor – e.g., integrated microprocessor /
7. Memory / RAM /
8. Data selector circuit
9. Circuit to transmit the answers of the television viewer to the memory of the external central processor
10. Circuit for video signal conversion and picture illumination
11. Circuit for sound signal recovery
12. Keypad
13. Infrared transmitter
14. Remote control signal
15. Digital data and voice with different variants of the additional information
16. Infrared receiver
17. Digital data
18. At least one audio channel
19. Command to turn on the audio of a corresponding channel
20. Circuit to turn on the selected audio channel
21. Infrared transmitter
22. Audio signal in the infrared band with selected additional information
23. Remote control transmitter

24. Retransmission circuit for audio transmission with the selected audio channel turned on for the time period determined by the central processor / 6 /
25. Video signal
26. Control circuit
27. Switching of the television channels for prefiltering the corresponding fragment of a broadcast
28. Brief period of ringing signal transmission during which the answer is delayed
29. Prefix generator for transmission announcement of the television viewer's answer
30. Subscriber dial number generator
31. Circuit to generate the television viewer's answer
32. Control circuit
33. Recording device to record the television viewer's answer on a magnetic card
34. Circuit for remote input of the television viewer's answers
35. Circuit to input the television viewer's initial data
36. Circuit to prefilter the digital data from the video signal
37. Printer
38. Multiplexer circuit
39. Input circuits of the central processor
40. Circuit to prefilter the digital manipulation programs / telesoftware / and the identification data of the individual fragments of the broadcast
41. Data selector circuit or circuit to compare the addresses of teletext information, e.g., page numbers, the local central processor / 6 / switches the data selector circuits based on the television viewer's answers and the digital manipulation



programs / telesoftware /, which is directed through the output circuits of the central processor / 49 /; if these addresses match, the subsequently arriving data is entered in the memory / 44 /

42. Generator of alphanumeric and graphic characters
43. Circuit to turn on one of the additional audio channels in the television receiver / 54 /
44. Memory / RAM /
45. Multiplexer circuit
46. Signal output for the subscriber telephone line
47. Circuit for prefiltering the characters to control picture illumination
48. Output circuit for characters
49. Output circuit of the central processor
50. Local information source, e.g., video disk device
51. Multiplexer circuit in the view finder of the television camera to superimpose the graphic characters onto the image
52. Receiver of the remote control signal
53. Signals to control the television receiver
54. Television receiver with at least one additional audio channel
55. Output circuit for video signals
56. Teletext decoder with the additional data output after the hamming decoder
57. Circuit for prefiltering the control character, e.g., a command: do not illuminate
58. Device comprising the remote control transmitter / 23 / and the audio retransmission circuit / 24 /
59. Infrared rays to transmit the remote control signals and the signals of the television viewer's answers / 34 /

- 60. Infrared rays to transmit the signals of at least one additional audio channel with additional information
- 61. Photo element to receive the audio signals / 60 /
- 62. Infrared rays to transmit the audio signals with the selected variant of the additional information
- 63. Photo element to receive the audio signals / 62 / for the infrared rays / 60 / dimmed
- 64. Ear phones / for the bone system of the ear /

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[see source for figures]

Number: 29 04 981  
Int. Cl.<sup>2</sup>: H 04 N 7/00  
Date filed: February 9, 1979  
Date laid open: August 16, 1979

## **APPENDIX C**

### **Final Office Action with Applicant's Page Numbering**



UNITED STATES DEPARTMENT OF COMMERCE

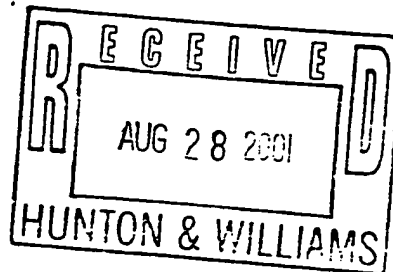
United States Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/470,571	06/06/95	HARVEY	5634.261

021957  
HUNTON AND WILLIAMS  
1900 K STREET N W  
WASHINGTON DC 20006

WM21/0827



EXAMINER  
HARVEY, D

ART UNIT	PAPER NUMBER
2614	35

DATE MAILED: 08/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

DOCKETED	8-28-01
ACTION CODE	Indefinite Notice of Appeal
BASE DATE	8-27-01
DUE DATE	10-27-01
DEADLINE	02-27-02
ATTORNEYS	
INITIALS	ACE

# Office Action Summary

Application No.  
08/470,571

Applicant(s)  
Harvey et al.

Examiner  
David E. Harvey

Art Unit  
2614



– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Jul 13, 2000

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 56-182 is/are pending in the applica

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from considera

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 56-182 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirem

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some\* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

20) ☐ Other:



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Applicant/Patent  
Harvey et al.

Application/Control No.  
08/470,571

Examiner  
David E. Harvey

Art Unit  
2614

Page 1 of 6

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W	Etkin, "Vertical Interval Signal Application," Broadcast Engineering" April 1970 pages 30-35
X	Anderson, "The Vertical Interval: A General-Purpose Transmission Path" IEEE VOL BC 17 No. 3, 9/1971 pages 77-82

<sup>1</sup> A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

<sup>1</sup> Dates in MM-YYYY format are publication dates.

<sup>2</sup> Classifications may be U.S. or foreign.

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Page 2 of 6

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<sup>1</sup> A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

<sup>2</sup> Dates in MM-YYYY format are publication dates.

<sup>3</sup> Classifications may be U.S. or foreign.

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2614

Page 3 of 6

## **U.S. PATENT DOCUMENTS**

	Document Number Country Code-Number-Kind Code	Date MM-YYYY <sup>1</sup>	Name	Classification <sup>2</sup>
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W	Mothersole, "Teletext Signal Generation Equipment and Systems" IEEE Transactions , Vol CE-25, No. 3 July 1979, pages 345-352
	Parker, "The Impact Of Digital Techniques on Studio Equipment" , Pages 267-272

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<sup>1</sup> Dates in MM-YYYY format are publication dates.

<sup>2</sup>Classifications may be U.S. or foreign.

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08/470,571

Examiner  
David E. Harvey

Art Unit  
2614

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## **U.S. PATENT DOCUMENTS**

	Document Number Country Code-Number-Kind Code	Date MM-YYYY <sup>1</sup>	Name	Classification <sup>2</sup>
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N					
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P					
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S					
T					

## **NON-PATENT DOCUMENTS**

	Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
U	Ferre, "Goodbye, TV Snow", Electronic Servicing, May 1977, pages 14-22
V	Howell, "A Primer on Digital Television" Journal of the SMPTE, 7/1975, 538-541
W	Beakhurst et al. "Teletext and viewdata- a comprehensive component solution" Proc.IEEE, Vol 126, No. 12, December 1979, pages 1374-1396
	Mausier, "Versatile Transmission Video Facilities at NBC New York", SMPTE Journal Vol 85, 10/1976, page 811

<sup>1</sup> A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

<sup>1</sup> Dates in MM-YYYY format are publication dates.

<sup>2</sup> Classifications may be U.S. or foreign.

# **Notice of References Cited**

Applicant/Patent  
Harvey et al.

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U	Stagg, "An Integrated Teletext and Viewdata Receiver" The SERT Journal Vol 11, 10/1977, pages 210-213
V	Money, "CEEFAQ/ ORACLE: reception techniques (part 1)" Television, July 1975, Vol 25, No. 9, pages 398-398
W	"BS-14 Broadcast Specification: Television Broadcast Videotex" June 19, 1981
	Hedger, "Telesoftware-Value Added Teletext" IEEE Transaction Vol CE-26, August 1980, pages 555-566

<sup>1</sup> A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

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S					
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## NON-PATENT DOCUMENTS

	Include, as applicable: Author, Title, Date, Publisher, Edition or Volume, Pertinent Pages
U	"Systems of VSA-Videographic" (KC026867)
V	United Kingdom Teletext Industry Group, petition before FCC, 3/1981, page 5 of appendix
W	"Landmark forms cable weather news network", Editor & Publisher, August 1981

<sup>1</sup> A copy of this reference is not being furnished with this Office action. See MPEP § 707.05(a).

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## **SECTION I: ( A MOST SIGNIFICANT ISSUE)**

A) The present application is continuation that depends on a chain of applications dating back to 11/3/1981. Each application within this chain contains only a respective one of two separate and distinct written descriptions<sup>1</sup>. Specifically:

1) All of the applications that occur in the chain prior to CIP application S.N. 96,096 of 9/11/87 comprise the same **44 page** written description.

[Because this 44 page written description was in applicant's earliest filed parent application the examiner has assumed, right or wrong, that this disclosure gets an effective filing date of 11/3/1981; i.e. which is the reason the examiner often refers to this 44 page disclosure as: "the original parent disclosure", "the parent disclosure", "the 1981 disclosure", etc,...]; and

2) All of the applications that occur in the chain from the filing of CIP application S.N. 96,096 to the present, comprise the same **557 page** written description which is, for all intents and purposes, *completely* different from the originally filed **44 page** written description.<sup>2, 3</sup>

[Because the written description of the present application is the same as the 557 page written description of the earlier filed CIP application the examiner has assumed, right or wrong, that the disclosure of present application gets the effective filing date of 9/11/87; i.e. which is the reason the examiner often refers to the disclosure of the instant application as the: "the present disclosure as originally filed", "the present disclosure", "the 1987 disclosure", "the instant disclosure", etc,...].

B) All the inventions that are described within the 557 pages of applicant's instant 1987 disclosure represent specific applications of applicant's 1987 "SPAM data transmission technology" that was first described (i.e. *introduced*) via applicant's 1987 disclosure. In contrast, all the inventions that were described in the 44 pages of applicant's earlier 1981 disclosure represent specific applications of technology

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<sup>1</sup> The later filed 557 page 1987 disclosure literally replaced the earlier filed 1981 parent disclosure as "the instant" disclosure because it did not incorporate the earlier filed 1981 disclosure into itself, i.e. the earlier filed 1981 disclosure was left behind in the drafting and filing of the 1987 disclosure.

<sup>2</sup> The 1981 and 1987 inventions from applicant's 1981 and 1987 disclosures represent vastly different 1981 and 1987 data transmission technology, respectively. Since applicant's 1981 inventions and technology were not incorporated into applicant's 1987 disclosure (they were not "carried forward" into the 1987 disclosure), applicant cannot be claiming his 1981 inventions/technology now; i.e. because the currently pending claims must derive all 112-1 support from the "instant disclosure" which is now the 1987 disclosure that only contains 1987 inventions/technology. The 1987 inventions/technology that is now necessarily being claimed is certainly not entitled to the 1981 filing date of applicant's earlier 1981 inventions/technology.

<sup>3</sup> SEE APPENDIX II OF THIS OFFICE ACTION.

other than said 1987 "SPAM data transmission technology"; e.g. they appear to represent applications of cuing signal/tone technology which was common to 1981. In any event, applicant's present 1987 "SPAM-based" disclosure clearly represents a "NEW BEST MODE DISCLOSURE" when compared to the 1981 disclosure **that it literally replaced**. As explained by Judge Rich in "TRANSCO PRODUCT INC. ~~V~~S PERFORMANCE CONTRACTING, INC. and PERFORMANCE CONTRACTING GROUP, INC. [38 F.3d551; 32 U.S.P.Q.2D (BNA) 1077], this fact alone deprives applicant of his claim to the 1981 effective filing date:

"It must be understood that the introduction of a new best mode disclosure would constitute the injection of 'new matter' into the application and automatically deprive the applicant of the benefit of the earlier filing date of the parent or original application for any claim whose validity rests on the new best mode disclosure."

**[IMPORTANT NOTE:** Applicant failed to incorporate his 1981 disclosure into his 1987 disclosure in any way whatsoever (e.g. it was neither physically incorporated nor was it incorporated by reference). Being such, applicant's present 1987 disclosure literally replaced the original 1981 disclosure as the "instant disclosure" from which all section 112 support must now be obtained <sup>4</sup>. Being such, the "validity" all of applicant's currently pending claims necessarily rests solely on applicant's 1987 "new best mode disclosure" and solely in the new 1987 "SPAM data transmission technology" on which the inventions of applicant's 1987 "new best mode disclosure" are based. Because of this, as explained by Judge Rich, the present applicant has "automatically deprived" himself the benefit of the earlier 1981 filing date of his 1981 parent application with respect to the currently pending claims; i.e. applicant's 1987 inventions, comprised of applicant's 1987 SPAM technology, were not described in applicant's 1981 parent application and therefor are not entitled to the 1981 filing date of the parent application. Viewed from another direction, the inventions disclosed in applicant's 1981 disclosure and the inventions disclosed in applicant's 1987 disclosure represent very different data transmission system technologies, and therefor do not constitute "common subject matter" that is required to substantiate applicant's claim to the earlier 1981 filing date <sup>5</sup>. Because applicant's 1981

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<sup>4</sup> SEE: *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973)

<sup>5</sup> Because of the way applicant elected to draft and file his 1987 disclosure, applicant's 1981 disclosure and 1981 inventions were not carried forward into, and are not part of, applicant's 1987 disclosure. Thus, because the 1981 inventions are not disclosed within the 1987 disclosure, the 1987 disclosure does not provide required section 112-1 support for claims which are directed to these 1981 inventions. Likewise, the 1987 inventions, that are now necessarily being claimed by the currently pending



and 1987 disclosures do not contain "common subject matter", the effective filing date for all of applicant's later filed 1987 inventions (i.e. those 1987 inventions that are now necessarily being claimed) can be no earlier than the original 1987 filing date of applicant's CIP in which they were first described (i.e. the earliest filing date of applicant's 557 page "new best mode disclosure")<sup>6</sup>.

C) "Appendix A" of applicant's last response illustrates why applicant's claim to the 1981 priority date is improper/erroneous. Specifically, in "Appendix A" of applicant's last response, applicant allegedly shows:

- 1) where/how applicant's *instant specification* (i.e. the 1987 disclosure) provides section 112-1 support for his pending amended claims; and also
- 2) where/how applicant's *previously filed 1981 specification* (i.e. the 1981 disclosure) provides section 112-1 support for these same pending amended claims.

However, what is crystal clear from applicant's showing is that the scope/meaning/interpretation that is given to each claim limitation via the *instant 1987 specification* differs from the scope/meaning/interpretation given to each claim limitation via the *1981 parent specification*<sup>7</sup>. So which of these two 1987 and 1981 scopes/meanings/interpretations should each claim limitation get? Well, because the disclosure of applicant's 1981 parent application was not incorporated into the instant 1987 disclosure, each claim limitation gets the scope/meaning/interpretation that is given to it by the *instant 1987 disclosure*. And, because these 1987 scopes/meanings/interpretations are not the same as- and do not go back to- the original 1981 disclosure, the 1987 scopes/meanings/interpretations cannot be given the 1981 filing date. By alleging a 1981 effective filing date for the 1987 claim scopes/meanings/interpretations that are now necessarily being claimed via his pending claims, applicant is effectively attempting to use his pending claims'

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claims, were not previously disclosed in the earlier filed 1981 disclosure and therefor are not entitled to the 1981 filing date. In contrast to the present circumstances, had applicant elected instead to incorporate his 1981 disclosure and inventions into the 1987 disclosure during the drafting and filing of the present 1987 disclosure (i.e. applicant did not!), then applicant would have been entitled to draft claims directed to the incorporated 1981 portion of the 1987 disclosure and such claims, i.e. claims supported by this incorporated 1981 portion, would have been entitled to the 1981 filing date because they would have represented inventions which were previously described/disclosed in the earlier filed 1981 disclosure; i.e. they would have represented "common subject matter".

<sup>6</sup> At best, one can only argue that a given one of applicant's 1981 inventions and a given one of applicant's 1987 inventions represent different technological ways of achieving similar goals/effects and therefor constitute some type of "correlated subject matter" [note "APPENDIX A and C of applicant's last response"]. However, "correlated subject matter" does not constitute "common subject matter" and therefor does not substantiate a claim for 1981 priority.

<sup>7</sup> i.e. the respective 1987 and 1981 interpretations of the same limitations encompass subject matter of a different scope/meaning and thus do not constitute "common subject matter" that is required for the purpose of establishing priority.

limitations as time machines so as to transport those portions of his 1987 disclosure that are now necessarily being claimed by each limitation (e.g. the limitations 1987 claim interpretations), back in time to the earlier 1981 filing date of the 1981 parent application. The effect of such illicit time travel can be seen in the following example:

The scope/meaning that has been given to the term "programming" by applicant's present 1987 disclosure is broader and encompasses much more than the scope/meaning that was given to this same "programming" terminology by applicant's original 1981 disclosure. By alleging the 1981 priority date for the pending claims which include this "programming" terminology, applicant is effectively trying to transport the broader 1987 definition of "programming" back to the time of his earlier 1981 application thereby retroactively redefining and broadening the meaning/scope of "programming" at the time of the 1981 disclosure so as to have the later 1987 definition. However, because the same "programming" terminology has been defined differently within the respective 1981 and 1987 disclosures, the "programming" terminology itself does not constitute "common subject matter" and therefor the "programming" terminology from the 1987 disclosure is not entitled to the 1981 filing date of the 1981 parent application.

[It is helpful to remember that this situation exists because applicant elected not to incorporate the 1981 disclosure into the 1987 disclosure. By failing to carry the 1981 disclosure forward into his 1987 new best mode disclosure, applicant has forfeited his right to now claim any and all subject matter from his original 1981 disclosure (i.e. at least all subject matter which was not made part of the present 1987 disclosure). Because the 1981 definition of "programming" was not incorporated into applicant's 1987 disclosure, the old 1981 definition of "programming" has been forfeited too (the current "programming" recitations necessarily get the 1987 "programming" definition AND its 1987 filing date to boot!)).

**SECTION II:** ( The record appears to be replete with straw man arguments and allegations. This “noise” makes it difficult for the Office to frame the issues that need to be resolved prior to Issue (or at Appeal). The present examiner believes that much of this noise could be eliminated if applicant were to explain away the following “examples of noise” in a simple, clear, direct, and concise manner):

**THE EXAMPLES:**

1) Applicant alleges that “teletext decoders” did not “locally generate” the images that they outputted/displayed. According to applicant, teletext decoders only transferred, to their outputs, displayable image data that was received at their inputs. The examiner rejects such a notion. The following is noted:

- a) That, as was exemplified via the discussion provided on page 5 of the appendix that was attached to a 1981 “PETITION FOR RULEMAKING” submitted to the FCC <sup>8</sup>, it was notoriously well known in the art that transmitted teletext data *typically* comprised a “series of instructions” which instructed the teletext decoders on how to “generate” the desired images which were to be outputted/displayed;
- b) That conventional teletext decoders *typically* comprised “character generators”; i.e. such “character generators” would not have been required had the received teletext data actually comprised displayable image data as alleged by applicant; and
- c) That transmitted teletext data *typically* comprised of ASCII-type codes; i.e. wherein one of ordinary skill in the art would have understood the fact that these ASCII-type codes are not themselves displayable. Specifically, these ASCII-type codes only identified locally stored pixel patterns which were locally retrieved and locally assembled into image frames, e.g. via the “character generators”, in order to locally generate the images that were outputted/displayed.

Clearly, teletext decoders operated to “*locally generate*” the images that they outputted and displayed! <sup>9</sup>

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<sup>8</sup> SEE: APPENDIX IX of this Office action

<sup>9</sup> Character data was “always” transmitted in an encoded non-displayable format by “typical” teletext transmission systems; e.g. the only exception to this “typical” configuration that the examiner is aware of is “typical” Chinese/Japanese ideograph teletext systems being that there were simply too many Chinese/Japanese characters to encode efficiently. Graphics data, on the other hand, was “typically” encoded such that designated bits of each transmitted graphic code could be mapped by the decoder to regions of the display screen so as to generate the graphics image frame that was to be displayed. Yes, even here, a local graphics generator was still required to convert the graphics codes into displayable pixel data. Such a local graphics generator was conventionally implemented either with dedicated logic circuitry or with a “graphics generator” of the “character generator” variety [SEE: the discussion under the headings “Producing the display” and “Graphics” on page 398 of the article “CEEFAQ/ORACLE: reception

2) Applicant points out that term "computer software" has been described as: "a series of instructions which controls the operation of a computer". Then, stretching this definition, applicant erroneously suggests that the term "computer software" encompasses: "**any** series of instructions which controls the operation of a computer". And finally, using this improperly stretched definition, applicant argues that each series of transmitted cuing codes which were described in his 1981 parent application inherently taught the transmission and/or downloading of "computer software" in view that each of these series of codes represented "instructions which controlled the operation of a computer". Applicant's argument is lame. For if one were to adopt applicant's argument, then in applicant's new world:

a) a computer mouse and computer keyboard suddenly become generators of "computer software" because they too generate series of instructions which are used to control the operation of a computer;

b) teletext data itself, when received by a CPU implemented decoder, suddenly becomes "computer software" because it too represents series of instructions which are used to instruct a computer as to how to generate an image for display;

c) etc,...

Clearly, applicant's argument twists the definition of "computer software" in a way that is repugnant to its conventional use/meaning in order to obtain a 1981 effective filing date for something that he did not have in his possession, and/or did not disclose, until 1987; e.g. namely, the downloading of computer software.

3) While applicant has alleged that his "computer software/programming" recitations should be stretched so as to retroactively find support from things which were not "computer software/programming" <sup>10</sup> (i.e. a series of cuing codes/signals from his 1981 disclosure), applicant also takes the opposite approach by alleging that elements which operated to process signals (i.e. specifically teletext decoders) are not encompassed by the "signal processor" recitations of his pending amended claims <sup>11</sup>. The examiner disagrees. The examiner points out that not only are teletext decoders "signal processors" in any conventional sense of such terminology, but that teletext decoders are in fact "signal processors" specifically within the

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techniques (part D)" by Money in the 7/1975 issue of "TELEVISION"; and lines 13-21 in column 9 of US Patent #3,982,065].

<sup>10</sup> This erroneous *reading* has been used to allege support for that which is now claimed back to the 1981 filing date of the 1981 parent application.

<sup>11</sup> This erroneous *reading* has been used to try to distinguish which is now claimed over applied "prior art" of record.

context of applicant's own alleged invention. More to the point, the teletext decoders of the prior art and the "SPAM" decoders of applicant's own alleged invention both operated to extract and process packets of encoded information distributed to them, at least "*preferably*", via the VBI of broadcasted and/or cablecasted TV programming; i.e. wherein the packets of encoded information comprised teletext data packets in the case of prior art teletext decoders and comprised SPAM data packets in the case of the SPAM decoders of applicants alleged invention <sup>12</sup>. Being such, applicant's allegation that conventional teletext decoders should somehow be excluded by the "signal processor" recitations of his pending claims seems to fall under the heading of: "NONSENSE" <sup>13</sup>.

4) The examiner maintains that applicant's own "SPAM" transmission system, at least as described in the context of television distribution, constitutes little more than applicant's own version of an "extended teletext system" <sup>14</sup>. However, when teletext "prior art" is applied against his claims, applicant becomes hostile to the suggestion that there is any correlation between his own "SPAM" transmission system and conventional teletext transmission systems <sup>15</sup>. Yet, on the other hand, applicant appears to openly believe that the scope of many of his pending amended claims encompasses the "WEATHER STAR" system/receiver technology which, to

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<sup>12</sup> In fact, for reasons which will be addressed in more detail below, the examiner maintains that the "SPAM" data packets of applicant's alleged invention represent, for all intents and purposes, little more than applicant's own version of a teletext system in which the function of its teletext data packets have been "extended" so as to carry more than just the normal displayable character/graphics code (e.g. "extended" to carry control signals, Telesoftware, etc,...).

<sup>13</sup> NOTE:

- 1) that *typical* teletext decoders sequentially performed steps of signal slicing/separation, serial-to-parallel conversion, signal storage, ASCII code to pixel data translation, etc... all which were recognized as having comprised steps of "signal processing" [the last 16 lines on page 5 of the appendix that is attached to the "PETITION FOR RULEMAKING" which was filed with the FCC on 3/26/1981 by the "United Kingdom Teletext Industry Group" which explicitly indicates teletext decoders as having performed "signal processing"]; and
- 2) that such processing was even true in the unusual "ideograph" decoders of applicant's argument [i.e. see the block labeled "Teletext signal processor" in figure 10 of the NFIK article "A Teletext System for Ideographs" by Numaguchi et al.].

<sup>14</sup> The term "extended teletext" is being used here to refer to teletext systems which have been "extended" so as to carry other types of information beyond the normal/typical coded teletext character/graphic information. One alleged novel feature of applicant's SPAM packets was its ability to carry and distribute computer software. However, contrary to applicant's allegation, packets of "extended teletext" systems had long been used to carry and distribute computer software too. In fact, the term "Telesoftware" had been specifically coined so as to refer to the "software" that was carried by "extended teletext systems. The point being, that SPAM and Teletext data packets are equivalent right down to there recognized ability to carry other forms of information including "Telesoftware".

<sup>15</sup> Yet a large portion, if not the majority, of the "prior art" cited by applicant pertains to teletext.

the extent understood by the examiner, is a teletext based technology <sup>16</sup>. If applicant's claimed/disclosed "SPAM" systems/receivers encompass teletext based systems/receivers such as the "WEATHER STAR" system/receiver technology, then how in the world can applicant possibly suggest that "SPAM" and teletext are not correlated/analogous technologies/arts when considering applied prior art? Clearly there is a conflict between the two positions.

5) Applicant and his originally filed 1987 disclosure both seem to have alleged that "digital television signals/programming", of the type that now appears to be recited in his pending amended claims, were notoriously well known in the art at the time of his alleged invention. The examiner has challenged applicant's apparent allegations. In response to this challenge, applicant has (and continues) to submit U.S. Patent #3,906,480 to Schwartz et al. as having evidenced the conventional "digital television signal" technology on which his disclosure and amended claims were/are allegedly based. The examiner is mystified by this submission. The examiner points out that the cited Schwartz et al. patent describes a computer display system in which a computer was used to generate, albeit digitally, frames of vector encoded graphic/character information which were then transferred, via a data bus, to "digital TV monitors" for display thereon. As far as the examiner can tell, the Schwartz et al. disclosure has absolutely nothing to do with the transmission of "digitized TV signals/programming" in any conventional sense of such terminology. Simply trying to figure out how the Schwartz et al. patent might be related to anything that was originally disclosed by applicant in his 1987 disclosure, much less trying to figure out how it could have been used to enable that which was originally disclosed by applicant in his 1987 disclosure, represents an insurmountable invitation to experimentation unto itself. If Schwartz et al. has been cited by applicant out of carelessness, then its submission to the Office for required review and consideration represents nothing less than an unnecessary drain on already limited PTO resources. If, on the other hand, Schwartz et al. was cited out of necessity (e.g. if it actually represents the best showing of his "digital television" recitation that applicant is/was aware of), then its very presence in the record only goes to support the examiner's position that which is now claimed by applicant, i.e. the subsequently introduced "digital television" recitations, are not supported or enabled by applicant's originally filed 1987 disclosure.

6) Throughout prosecution, applicant has made many attempts to have the applied Zaboklicki reference [i.e. DE 2,914,981] removed from consideration. In his latest response, applicant argues that the applied Zaboklicki reference should be removed from consideration because the teachings and descriptions provided by this applied

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<sup>16</sup> SEE: the article "Landmark forms cable weather news network" which was cited by applicant [see appendix VIII attached hereto]

prior art reference differ from teachings and descriptions provided by other non-applied members of its patent family (namely, GB #2,016,874). Such a position is absurd. If Zaboklicki DE 2,914,981 teaches that which applicant now claims, then the fact that Zaboklicki GB #2,016,874 might not have provided these same teachings (even if proven true) is irrelevant to the fact that the claims are unpatentable over Zaboklicki DE 2,914,981.

7) Within the originally filed abstract of applicant's 1981 parent application (i.e. note S.N. 06/317,510), the term "*programming*" was explicitly defined to mean:

"everything transmitted over television or radio intended for communication of entertainment or to instruct or inform". [see lines 4-7 in the abstract of US patent #4,694,490]

Today this definition is in conflict with applicant's present needs (e.g. it too refutes applicant's claim to the earlier 1981 priority date <sup>17</sup>). Being such, applicant now argues that this explicitly stated definition should be ignored and given no weight because the "abstract", as applicant alleges, was not *technically* part of his 1981 written description. The examiner rejects this allegation too. The examiner points out: that the originally filed abstract was certainly part of the originally filed disclosure of applicant's 1981 parent application on which all issues must be considered/based; that the definition of "*programming*" that was provided by this originally filed abstract is completely consistent with the way that it was used throughout the 1981 disclosure.

8) In order to try to overcome applied prior art of record, applicant has willfully and repeatedly alleged that the Radio and Television broadcast arts represent non-analogous arts. This position is absurd and wholly unsupportable. The examiner points out that the Television broadcast art actually evolved from the radio broadcast art because the original radio broadcast networks represented existing entities who had program distribution resources and expertise which could be easily extended and applied to TV programming; e.g. NBC, CBS, ABC all began as Radio distribution networks which evolved, quite "naturally", into Television broadcast networks too [NOTE: the last 5 lines of the first paragraph of the first column on page 811 of the article "Versatile Transmission Video Facilities at NBC New York" by Mausler which states that: "the origins of television broadcasting practice may

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<sup>17</sup> The examiner notes that applicant is only entitled to the 1981 priority date for "common subject matter", i.e. the "same" subject matter that is commonly found in both the present 1987 and the 1981 parent disclosures as originally filed. However, the term "programming" itself does not represent "common subject matter" required for priority because the definition given to it within the present 1987 disclosure is vastly different than the definition given to it via the 1981 parent. Specifically, whenever the "programming" terminology is used in a currently pending claim, section 112-1 demands that it be held to the definition that is explicitly provided via the present 1987 disclosure. This 1987 definition is not entitled to the 1981 priority date in view that the 1981 disclosure explicitly gave the same terminology a different meaning.

be found in radio"]. In fact, the most significant difference (i.e. if not the only "real" difference) between Radio and Television distribution networks is the difference in bandwidth of the equipment that is required to handle Radio and Television program distributions. Thus, for example, when Hetrich [Australian #74,619] stated that his disclosed "Netcue" system was applicable to either "a network of radio or television stations", one of ordinary skill in the art would have recognized that this teaching was in fact founded on the underlying understanding that Radio and Television network were in fact analogous arts!!! Applicant's allegations to the contrary is based on a unrealistically low level of skill in the art.

9) Throughout their dealings with the PTO, applicant has steadfastly maintained that the "*simultaneous or sequential presentation*" recitation, as found in many of their pending claims, represents a "key limitation" in overcoming and/or avoiding "prior art" of record. The examiner strongly disagrees. Specifically, the examiner points out that the alternative expressions "*simultaneous or sequential*" or "*one of a simultaneous and sequential*" simply encompasses ANY AND ALL of the ways by which two types of information could ever be presented to a given audience. Specifically, any time two types of information are presented to a given audience, they must necessarily be presented to that audience either *simultaneously or sequentially* in time. The phrase "*simultaneous or sequential*" covers ALL of the possibilities! Thus, if one can show that a given piece of "prior art" operated to present two types of information to a given audience, then one has in fact implicitly shown that the prior art meets the "*simultaneous or sequential presentation*" limitation of applicant's claims; i.e. again, the recitation "*simultaneous or sequential*" covers ALL of the way that two types of data could ever be displayed to a single audience!

10) Applicant clearly failed to carry his original 1981 disclosure forward into the instant 1987 disclosure <sup>18</sup>. Because of this, applicant has forfeited his right to now claim any subject matter that was set forth in the disclosure of his originally filed 1981 parent application, but was not carried forward into the disclosure of his originally filed 1987 parent application <sup>19</sup>. Thus, **APPLICANT IS CLEARLY WRONG** when he alleges that he can secure a 1981 priority date for that which is now claimed by showing "possession" of that which is now claimed via the original disclosure of his 1981 parent application (i.e. NOT for the subject matter that was

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<sup>18</sup> The examiner notes that applicant failed to incorporate the original disclosure from his 1981 parent application into the original disclosure of his 1987 parent; i.e. the 1981 disclosure was neither formally copied into the 1987 disclosure nor was the 1981 disclosure "incorporated by reference" into the 1987 disclosure. The original 1987 disclosure simply replaced the 1981 disclosure as "THE INSTANT DISCLOSURE" from which all section 112 issues must be analyzed.

<sup>19</sup> As evidenced by testimony given in ITC investigation #337-TA-392, even applicant and/or his counsel seemed unsure as to exactly what subject matter from applicant's 1981 parent ("if any") made it into applicant's 1987 disclosure.



left behind!). Specifically, not only must applicant show that he possessed the subject matter that is now claimed with respect to the original 1981 disclosure but, more importantly <sup>20</sup>, applicant must first show possession of the same claimed subject matter with respect to the instant 1987 disclosure. Stated another way, to secure priority, applicant must be able to show that he did not forfeit his right to claim the subject matter possessed in his originally filed 1981 parent application by showing, *independently* <sup>21</sup>, that he possessed this same subject matter via the originally filed disclosure of his present application too (i.e. with 1987 disclosure).

11) Applicant is only entitled to claim subject matter which was set forth within the originally filed 1987 disclosure of his present application in accordance with ALL of the requirements of section 112-1. Specifically, the examiner refutes applicant's allegations that the original disclosure of his 1981 parent application can be used in place of the instant 1987 disclosure to meet one or more of the section 112-1 requirements (namely, to establish "possession" of that which is now claimed). It is only after proper section 112 support (i.e. including "possession") has first been established for the pending claims from the disclosure of the present application (the 1987 disclosure), that there is even a need to consider applicant's 1981 parent application at all. Simply put, if the pending claims are not supported under section 112-1 by applicant's present disclosure as originally filed, then the pending claims themselves fail to comply with the requirements of section 112-1 and no further questions need be asked <sup>22</sup>. Again, because applicant failed to formally/properly incorporate his 1981 disclosure into his 1987 disclosure, applicant is prohibited from relying on his 1981 disclosure to supplement his present 1987 disclosure (i.e. at least as far as complying with the requirements of section 112-1 is concerned). Stated another way, because applicant's 1981 parent application was never formally incorporated into applicant's present 1987 disclosure, it does not constitute part of applicant's 1987 disclosure, i.e. the *instant disclosure*, from which all section 112-1 support for the currently pending amended claims must be derived.

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<sup>20</sup> "More important" in the sense that applicant is prohibited from now claiming anything that is not fully supported in accordance with all of the requirements of section 112-1 by the present disclosure (e.g. the disclosure that was originally filed by applicant in 1987). Specifically, the present claims fall under section 112-1 if they are not fully supported by the present 1987 disclosure even if they were, by some remote chance, fully supported by the disclosure of the earlier 1981 parent.

<sup>21</sup> If applicant had formally/properly incorporated the written description from his 1981 parent application into his originally filed 1987 disclosure, then there would be no need for these "independent" showings; i.e. applicant could have established "possession" via the originally filed disclosure of his 1981 application alone. It is only because applicant failed to formally/properly incorporate the written description from his 1981 parent into his originally filed 1987 disclosure, that such "independent" showings of "possession" are needed; i.e. because the actions taken by applicant have in fact caused the forfeiture of his right to now claim that subject matter from his 1981 disclosure which was not carried forward into the 1987 application.

<sup>22</sup> At least with respect to the issue of "adequate written description".

12) It is noted that applicant does not even pretend that the subject matter that is now being claimed represents "common subject matter" which is required to substantiate applicant's claim to the earlier 1981 filing date<sup>23</sup>. Instead, applicant seems only willing to allege that what is now being claimed represents "correlated subject matter" [NOTE: a) that Appendix C of applicant's last response sets forth alleged "correlations" between respective 1981 and 1987 disclosures; and b) that the tables of alleged support that are Appendix A of applicant's last response do nothing more than regurgitate these alleged "correlations" of Appendix C allegedly within context of the pending claims]. Allegations pertaining to the existence of "correlated subject matter" are irrelevant to the issue of priority [e.g. "common subject matter", not "correlated subject matter", is required to substantiate such a claim for priority].

13) The examiner notes that the "SPAM" technology, on which the "more sophisticated" systems of applicant's present 1987 disclosure are based, is vastly different from the "cuing signal" technology on which the "primitive" systems of applicant's 1981 parent application were based; e.g. the ability of SPAM to carry and distribute "software" being but just one of the more notable differences. Clearly, the "more sophisticated" 1987 alleged inventions that are now *necessarily being claimed*<sup>24</sup> are not entitled to the 1981 filing date of their 1981 "primitive" ancestors; i.e. applicant is not allowed to transport his "more sophisticated" 1987 alleged inventions back in time to the 1981 filing date of his different, albeit sometimes "correlated", "primitive" 1981 alleged inventions<sup>25</sup>.

14) The issues cited above illustrate a further dilemma that the examiners have faced when trying to read and understand that which is now being claimed by applicant. Specifically, terminology which might seem definite when one looks to the instant 1987 disclosure alone, becomes confusing and indefinite when read in light of applicant's responses; responses in which applicant has applied newer 1987 interpretations/definitions to the claims in order to establish section 112-1 support and has applied older and different 1981 interpretations/definitions to the same claims in order to obtain the 1981 priority date for the recitations (this approach is evident throughout appendix A of applicant's last response). Thus, at times, it seems to be the record itself that has, or that has at least contributed to, making the meaning and scope of the claims' recitations unclear. It must also be noted that the claim recitations themselves are often contorted in the attempt to craft them to read

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<sup>23</sup> Corresponding to the "same" subject matter which must be commonly/respectively disclosed in both of applicant's 1981 and 1987 disclosures, as originally filed, for priority to be established.

<sup>24</sup> See section "11)" of this paragraph.

<sup>25</sup> See section "12)" of this paragraph.

independently on different teachings from the two disclosures <sup>26</sup>. Not only does this process results in claim limitations that are difficult to read in that they do not quite fit teachings from either disclosure, but more importantly, the effort involved in this process is wasted effort because the subject matter being claimed/referenced in the two disclosures is not "common subject matter"; e.g. the claims are not entitled to the 1981 filing date even if it could be shown that they can be read on respective (but different) subject matter from the two disclosure (a situation that is also quite evident from appendix A of applicant's last response).

Even so, given a record in which applicant continues to argue that his pending claims are entitled to the 1981 priority date because they can be read in different ways on the 1981 and 1987 disclosures, a situation is created in which the "broadest reasonable meaning" of a claim's limitations takes on one meaning when defined by the file history itself ( e.g. when based on applicant's attempt to read each claims' limitations, improperly, onto two completely different disclosures), and takes on a different meaning when defined, properly, from the originally filed 1987 disclosure by itself. Should the examiner apply the "prior art" according to the interpretations afforded by applicant's 1987 disclosure alone, or should the examiner apply the "prior art" according to the interpretations created by applicant via his improper reliance on different descriptions from the two 1981 and 1987 disclosures? No matter how you cut it, the result is confusion!

15) The position set forth by Judge Rich (see "SECTION I" of this Office action) shows that "continuity of disclosure", needed to establish the benefit of priority to an earlier filing date, requires the disclosure of "common subject matter" in a form that meets all of the requirements of section 112-1; e.g. even continuity of "best mode". This evidences the fact that applicant is simply wrong when he alleges that "priority" can be established merely by showing "possession" as of the earliest earlier filing date for which priority is claimed. Applicant seems to have overlooked the fact that the case law which applicant cited in support his erroneous allegation (i.e. *In re Wertheim*) was based on an underlying assumption that the disclosure of the parent application had been carried forward into the disclosure of the continuing application. This underlying assumption does not exist within the current state of applicant's applications and, therefor, the case law that has been cited and relied upon by applicant does not apply to the present fact pattern!

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<sup>26</sup> For example, applicant's claims now recite "downloadable processor instructions" which has no antecedent basis in either of the originally filed 1987 and 1981 disclosures. Yet it appears that this recitation could, quite properly, be read on the originally described "program instruction sets" (e.g. downloaded software) of applicant's instant 1987 disclosure. However, when one looks at appendix A of applicant's last response, one finds that applicant has attempted to read the recitation not on the originally described "program instruction sets" of the instant disclosure, but instead on respective (and different) commands/instructions from the 1981 and 1987 disclosures both of which functioned only to trigger actions/operations on the receiver side. Applicant resorts to this interpretation apparently out of recognition that the "program instruction sets"/software of the instant 1987 disclosure has no equivalent in the 1981 disclosure. What results from this process is a claim which looks like it is literally directed to the downloading of software that was described only in the 1987 disclosure, and yet has been afforded the 1981 effective filing of a parent application in which such a feature was not disclosed (i.e. effectively transporting the 1987 "downloading of software" feature back in time to the 1981 date of the parent application in which it was not disclosed).

16) At times, applicant seems to be of the opinion that *only* the "enablement" requirement of section 112-1 applies to the issue of "continuity". At other times, applicant seems to be of the opinion that *only* the "description" requirement of section 112-1 applies to the issue of "continuity". On its face, one of these two positions must be wrong (i.e. they are mutually exclusive). In reality, both positions are wrong. As evidenced above, *ALL* of the requirements under section 112-1 apply to the issue of "continuity" ( e.g. even "best mode"). Being such, applicant is only entitled to the benefit of an earlier filing date for claims that are directed to "common subject matter" for which "continuity" has been maintained between the present and the earlier filed application. "Continuity of common subject matter" exists between applications only when there is:

A) Continuity of "written description" between applications for the subject matter being claimed (as defined under section 112-1);

B) Continuity of "enablement" between applications for the subject matter being claimed (as defined under section 112-1); *and*

C) Continuity of "best mode" between applications for the subject matter being claimed (as defined under section 112-1).

[note sections 14 and 15 above]

Being such, none of applicant's currently pending amended claims are entitled to the priority date of applicant's 1981 parent application in that the claims are not directed to "subject matter" for which there has been:

a) the required continuity of "written description" between applications;

b) the required continuity of "enablement" between applications; *and*

c) the required continuity of "best mode" between applications. <sup>27</sup>

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<sup>27</sup> Applicant has argued that he was under no obligation to update his earlier filed disclosure with his "new best mode" when originally filed the present disclosure. The examiner strongly agrees. However, to maintain continuity between applications, applicant was required to at least carry forward the "old best mode" from of his earlier filed application into his originally filed present disclosure. Applicant failed to do this and therefor has not maintained "continuity of disclosure". For example, as was noted in part "13" of this paragraph, the "old best mode" of applicant's 1981 parent application was based exclusively on primitive 1981 cuing technology, while the "new best mode" of applicant's present application was based exclusively on the more sophisticated 1987 "SPAM" technology (i.e. extended teletext technology). In view that the primitive 1981 cuing technology was not carried forward into the present 1987 application, e.g. applicant's new 1987 disclosure literally replaced applicant's earlier filed 1981 disclosure in its entirety, the "old best mode" was in fact left behind (i.e. it had to be!). For this reason alone, the pending amended claims are not entitled to the 1981 priority date of applicant's parent application. Again, the pending amended claims are necessarily directed to the systems/methods of applicant's present 1987 disclosure which is based on the more sophisticated "SPAM" technology". Accepting applicant's claim to a 1981 priority date for these pending amended claims would allow applicant to transport claims which are necessarily directed to the 1987 disclosure/technology back in time to the 1981 date of the earlier disclosure/technology. Using this scheme, applicant would be able to improperly transport his new 1987 "best mode"/technology back in time to the 1981 date of his

17) It is understood that CIP practice allows an applicant to file a new application containing additional/new subject matter while preserving the applicant's right to claim (and the right to the earlier filing date for) subject matter which was previously disclosed in the parent application. But an applicant's right to claim subject matter from the parent application is only preserved for that subject matter of the parent application which has actually been carried forward (i.e. *incorporated*) into the disclosure of the CIP. Any and all subject matter from the parent application that is not carried forward into the disclosure of the CIP cannot be legally claimed within said CIP; i.e. the right to claim subject matter that is left behind is lost/forfeited with respect to said CIP application. To prevent such a loss/forfeiture, it is common for an applicant to draft the disclosure of his CIP application so that it literally incorporates the entire disclosure of the parent application, e.g. either physically or "by reference", thereby literally carrying forward all of the subject matter from the parent application into the CIP application and in doing so:

A) Preserving applicant's right to claim any/all of the subject matter from the parent within said CIP application; and

B) Preserving applicant's right to the filing date of the parent application for any/all claims which are directed to the subject matter of the parent application that has been carried forward into the CIP application.

In contrast to the common CIP practice described above, when filing his 1987 CIP disclosure, the present applicant elected to draft an entirely new specification and elected not to incorporate the disclosure from his 1981 parent application in its entirety. In fact, when filing his 1987 CIP disclosure, applicant elected to draft the entirely new specification in a way which makes it difficult to impossible to determine if any of the subject matter from his 1981 parent was carried forward into the disclosure of his CIP<sup>28</sup>. Today, faced with the fact that subject matter which was not carried forward (i.e. *incorporated*) into the present disclosure has been lost/forfeited, applicant takes a leap of faith by suggesting that all of the subject matter from his 1981 parent application somehow/miraculously found its way into the new disclosure of his 1987 CIP. Clearly, this is not true. In fact, when one studies the two disclosures in detail, one actually finds that little to none of the subject matter from the 1981 parent made it into the 1987 CIP disclosure in a form that constitutes "common subject matter" [note part 15 above]. For example, even

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"old best mode"/technology.

<sup>28</sup> Again, the 1987 CIP has clearly injected a "new best mode disclosure" by literally replacing the 1981 disclosure and this, by itself, automatically refutes all claims of priority to the 1981 filing date.

the subject matter from the two disclosures which looks similar at first glance, is based on vastly different transmission technologies, different scopes/meaning/interpretations, and on a new "best mode" [e.g. note appendix II of this Office action]. Being such, it does not appear that any of applicant's currently pending amended claims are entitled to the 1981 date of applicant's parent application.

18) In the past, applicant seems to have suggested that even if one were to find that applicant's 1981 disclosure had not been carried forward into applicant's later filed 1987 disclosure, one/applicant could still rely on said 1981 disclosure to provide an understanding of the later filed 1987 disclosure with respect to issues under section 112. The examiner notes that only "prior art" can be used for such purposes. Therefor applicant's 1981 can only be used to clarify/supplement his 1987 disclosure if it is found to be "prior art" with respect to the 1987 disclosure. But if the 1981 disclosure is "prior art" for applicant's suggested purpose (i.e. for the purpose of understanding the later filed 1987 disclosure), then it must be "prior art" for issues under sections 102 and 103 too. Thus, for applicant to suggest that his 1981 disclosure be used as "prior art" for the purpose of understanding his 1987 disclosure seems to put applicant, at least potentially, on a very slippery slope; i.e. because if applicant's position were ever *legally* accepted, then applicant's 1981 disclosure would *legally* become "prior art" against the 1987 disclosure for sections 102 and 103 issues too. <sup>29</sup>

19) The examiner notes that many of applicant's currently pending claims recite the following receiving station structures: a) a receiver; b) a signal detector; c) a processor; and d) an output device. Appendix A of applicant's last response shows that:

- a) the recited "receiver" actually refers to nothing more than --a TV tuner--;
- b) the recited "signal detector" actually refers to nothing more than a decoder 203 which extracts and error corrects embedded information from the VBI of TV programming;
- c) the recited "processor" actually refers to nothing more than microcomputer 205; and
- d) the recited "output device" refers to nothing more than a "TV monitor".

The examiner maintains that all of these recited structures are found within a conventional computer implemented teletext receivers: e.g. noting

- a) the TV tuning element (2);
- b) the extracting and decoding circuitry 8 and 11;

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<sup>29</sup> For the record: applicant's 1981 disclosure does not constitute "prior art" with respect to applicant's 1987 disclosure and therefor cannot serve as "prior art" for any purposes. Thus, applicant's 1981 disclosure cannot be used to supplement ones understanding of applicant's 1987 disclosure, with respect to issues under section 112-1, as seems to have been improperly suggested by applicant in the past. Specifically, with respect to section 112 issues, applicant's 1987 disclosure *stands alone*.

- c) the processing element (13); and
- d) the TV monitor/display (6),  
evidenced in the showing of BETTS [GB 1,556,366].

This further highlights the direct correlations that exists between the "SPAM" distribution system of applicant's alleged invention and the "teletext" distribution systems of the "prior art". In fact, the examiner believes that applicant's "SPAM" is synonymous with conventional "Extended Teletext" [note: parts "3)" and "4)" of this paragraph; part "A)" under "SECTION XI" of this Office action; etc,...];

20) Applicant's originally filed instant disclosure clearly taught away from the "interactive" ultimate receiver station configuration that is now being claimed. Namely, as originally described, one of the key advantages allegedly offered by applicant's alleged invention was the fact that its "ultimate receiver stations" produced their respective personalized audio/video presentation "automatically"; e.g. without any manual input from the viewer whereby and in a manner whereby the complex processing that was involved remained hidden from, and transparent to, the viewer [SEE: lines 27-34 on page 11 of applicant's instant disclosure as originally filed; lines 18-20 on page 91 of applicant's instant disclosure as originally filed; lines 13-34 on page 427 of applicant's instant disclosure as originally filed; etc,...]. Despite this original teaching, applicant now attempts to introduce claims (e.g. such as claim 56) which, according to applicant's own allegation (see appendix A of applicant's last response), recite an "interactive" implementation of the originally disclosed non-interactive "ultimate receiver stations". The section 112-1 problem is immediately apparent.

21) As originally described, the "ultimate receiver stations" of applicant's alleged invention produced the combined image of applicant's figure 1C by additively mixing the images of figures 1A and 1B in their entirety; i.e. this fact explains why the "line" of figure 1A had to be produced "on a background color that is transparent when overlaid on a separate video image" as was described in applicant's originally filed disclosure [see lines 9-14 on page 25 of applicant's instant disclosure]. Despite this original teaching, applicant now attempts to introduce claims (e.g. such as claim 167) which recite a process in which the respective images are now combined in less than their entirety. Again, the section 112-1 problem is immediately apparent.

22) etc,...

**SECTION III :** (Even though it falls short of requiring in haec verba support, section 112-1 still imposes a substantial burden on an applicant to clearly and concisely set forth in his originally filed disclosure that which the applicant intends to claim, e.g. that which the applicant understands to be his/her invention(s). For it is only by being clear and concise, that an applicant can actually establish that he/she *possessed* that which he/she claims with relative certainty.)

1. While section 112-1 does not require that in haec verba support for each of applicant's amended claims' limitations be found within applicant's originally filed instant disclosure, section 112-1 does require that the currently claimed subject matter to have been described sufficiently well in the originally filed disclosure, e.g. *clearly and concisely enough*, so that one skilled in the art would have "immediately discerned" all of the limitations that are now being claimed from the instant disclosure at the time the disclosure was originally filed. For if one would not have "immediately discerned" that which is now claimed from the originally filed instant disclosure, then one could not be sure that applicant truly possessed what he now claims as of said original filing date. The point being that the written description requirement of section 112-1 still places a heavy burden on an applicant to draft his disclosure in a fashion that clearly and concisely sets forth that which he intends to claim, even though it falls short of requiring in haec verba support for the claims. As to the actual weight of this burden, it is noted that even having "discernibly" described that which applicant he now wishes to claim is not good enough under



section 112-1; e.g. nothing less than “immediately discernible” will do.

It is the examiner’s position that which is now claimed by applicant was not described by applicant’s originally filed disclosure in the required “immediately discernible” fashion. The following is noted:

A) The examiner emphasizes the fact that he understands that the written description requirement of section 112-1 does not require that there be in haec verba support in applicant’s originally filed disclosure for the subject matter being claimed via applicant’s pending amended claims. Rather, section 112-1 “only” requires applicant’s originally filed disclosure to have conveyed to those of ordinary skill in the art, with reasonable clarity, that applicant actually possessed what he now claims. So how does one go about determining whether possession was conveyed with “reasonable clarity”? Well, for each pending claim, one makes determination as to whether one skilled in the art would have “immediately discerned” all of the claim’s limitations from the disclosure at the time that the disclosure was originally filed. Here, it must be noted that with respect to the instant application the pending amended claims currently before the Office were not part of the originally filed disclosure and therefor cannot serve as a basis/source of the teachings that are relied on to provide the required section 112-1 support. For the description requirement of section 112-1 to have been fulfilled, it must be judged that the subject matter recited by each amended claim and its limitations was taught and would have been “immediately discernible” from the originally filed disclosure alone (e.g. absent knowledge and teaching of the subsequently filed claims).

B) Under the present circumstances, attempting to determine whether or not applicant possessed what is now claimed is made ever more difficult by the fact that it is so unclear as to what it is that is now being claimed: for how can one begin to determine whether applicant possessed what he now claims, if one cannot determine exactly what it is that is now being claimed? The reason for this uncertainty is due, in no small part, to the fact that applicant has elected to try to introduce unsupported conventional art-specific terminology into his originally filed disclosure by way of the pending amended claims. In an attempt to justify the introduction of such unsupported terminology into the original disclosure under section 112-1, applicant has been forced to give the added terminology meanings and/or scopes which are repugnant to their normal/conventional/expected meanings and/or scopes as understood by those of ordinary skill in the art. Namely, applicant has been forced to twist and/or stretch the conventional meaning of the added art-specific terminology in order to allege that there is section 112-1 support in his originally filed disclosure for the introduction of the terminology into his disclosure “today”. However, because twisted/stretched definitions must be attached to the conventional terminology that is now being injected into the record, and because applicant’s originally filed instant disclosure does not set forth these required twisted/stretched definitions (i.e. how could it when it does not even contain the terminology that is now being added), the examiner would be remiss if he did not demand that applicant at least commit clear and concise definitions for this subsequently added terminology to the record: e.g.

wherein the provided definitions must be consistent with the scope of applicant's originally filed disclosure. For there is simply no place that the public can go to obtain applicant's stretched/twisted definitions if they are not formally recorded as part of the record. However, applicant seems unwilling to formally commit his stretched/twisted definitions to the record; i.e. possibly out of fear of being estopped, at some future date, from arguing that the added terminology literally encompasses its normal/conventional interpretations too (i.e. normal/conventional interpretations for which there is clearly no section 112-1 support in applicant's instant disclosure). So, instead of committing his stretched/twisted definitions to the record, applicant resorts to misdirection by arguing that it is the examiner's duty (and not applicant's) to read and understand the originally filed instant disclosure and to come up with claim interpretations which have proper 112-1 support. Applicant even goes so far as to express an interest in "learning from others", e.g. from examiners, ways in which his claim limitations might be interpreted so as to find proper section 112-1 support. The present examiner is only willing to go down this avenue to the extent necessary to try to apply "prior art" against the amended claims in hope of furthering the present prosecution (e.g. a difficult task given the examiner's limited understanding of exactly what is being claimed). As to the burden of actually locating the required section 112-1, the examiner notes that once applicant has been properly challenged, the burden of showing section 112-1 support for the amended claims shifts to applicant. To the extent of his current understanding, it is the examiner's opinion that one skilled in the art had little chance of discerning (and no chance of "immediately discerning") that which applicant now claims from said originally filed disclosure because:

1) The apparent and obvious meaning of the claims, e.g. given the apparent/obvious definitions of the added art-specific terminology, is different and/or inconsistent with that which was actually described in applicant's originally filed disclosure.

2) *Many/most* of the interpretations which must be applied to the currently pending claims' limitations, and subsequently introduced art-specific terminology, in order for them to be read back onto something that was originally disclosed by applicant are known only to applicant (if at all). There is simply no way for one of ordinary skill in the art to have "immediately discerned" that which is now located only within an applicant's head. <sup>30</sup>

3) Applicant's originally filed instant disclosure described a transmission system which comprised a large number of system components. Applicant's originally filed instant disclosure also described a limited number of ways/"examples" by which the components of his described transmission system could be organized/configured/activated in order to have performed a specific handful of disclosed operations/methods/processes [i.e. see the "TABLE OF CONTENTS" of applicant's disclosure]. While applicant's currently pending claims are clearly directed to operations/methods/processes, each claim does not appear to be directed to a respective one of the handful of

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<sup>30</sup> Specifically, the examiner notes that only those interpretations which happen to have been uncovered during the course of the prosecution have come within in the examiner's domain. To date, applicant seems unwilling to share these required interpretations with the examiners/PTO; again, by contending that determining the scope/meaning of his own pending claims is a function to be performed by the examiners, not by applicant.

operations/methods/processes that were originally described. Instead each of the recited operations/methods/processes appears to be a hybrid of the originally disclosed operations/methods/processes in that each of the recited operations/methods/processes appears to contain a mixture of steps from different ones of the originally described operations/methods/processes.<sup>31</sup> The examiner maintains that the originally filed disclosure does not provide the required section 112-1 support for these recited hybrid operations/methods/processes. Namely, the examiner maintains that each step that is now being recited by each claim which so as to define a recited "method" was not originally described in the context of the specified "sequence"/"method" in which it is now finds itself vi the amended claims.<sup>32</sup>

C) Applicant's 1981 disclosure set forth a television distribution system that distributed a plurality of different digital codes within the VBI of its distributed TV programming, wherein ones of these distributed codes operated only to "cue"/trigger the execution of specific segments of pre-loaded software by "devices" which were remotely located throughout the television network. The 1981 disclosure referred to these cuing codes as: "instructions" and "commands". Today, applicant argues that because a series of such distributed cuing codes represented a series of instructions/commands for controlling the operation of a pre-programmed processor they should be interpreted, in some twisted hindsight sense, as having specifically comprised/taught the downloading of *computer software/programming*. The examiner rejects this position noting: that the 1981 processor was in fact a "pre-programmed" processor; and that not every series of instructions/commands constitutes *computer software/programming* as applicant must now allege/suggest in support of his current position. Again, applicant's current position is equivalent to arguing that a computer input device, e.g. such as a mouse, generates computer software/programming because it also provides a series of coded instructions/commands which trigger the execution of specific segments of computer software/"programming" by a computer. Wrong! It continues to be the examiner's position that the series of coded instructions/commands which triggered a programmable device to execute designated portions of pre-loaded software, e.g. that which was disclosed in applicant's 1981 parent application, did not (and does not) constitute computer software/programming in any conventional sense/use of the terminology. The twisted/stretched/repugnant scope and meaning which applicant now tries to attach to conventional computer software/programming terminology, for the purpose of alleging section 112-1 support for this recited feature back to the 1981 filing date of the parent application, does not pass section 112-1

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<sup>31</sup> Note for example, as set forth by applicant himself in appendix A of applicant's last response, how the alleged support for the limitations of each pending claim comes from teachings that are scattered throughout the 557 pages of the originally filed written description; whereas, on the other hand, the 557 pages of the instant disclosure are themselves neatly divided into sections/"chapters" that describe respective ones of a handful of originally disclosed operations/methods/processes.

<sup>32</sup> Applicant's disclosed system structure itself does not implicitly describe any and all methods which could have been produced by randomly mixing and matching the stated functions of the systems components; e.g. indeed, applicant is now limited to now claiming only those "methods" which were actually described in an "immediately discernible" fashion by applicant's originally filed instant disclosure.

muster <sup>33</sup>. However, applicant's attempt to twist/stretch the conventional meaning of the "computer software/programming" terminology in a way which encompasses the sequence of transmitted coded cuing signals/"instructions" disclosed in his 1981 parent application exemplifies the kind of *word games* that the examiners have struggled to deal with throughout the prosecution of applicant's 329 co-pending applications. This kind of twisting also exposes how far applicant is needs to deform the obvious/apparent meaning of his pending amended claims to allege that 112-1 support exists for the recited subject matter that is now being claimed. Again, in the year 2000, applicant is contending that the transmission of a series of cuing codes which triggered the execution of pre-stored software, e.g. that which was actually taught within applicant's 1981 parent disclosure, provides (in hindsight) section 112 support for the subsequent introduction of recitations that have been drafted so as to literally recite/capture the downloading of computer software/programming. Nothing could be further from the truth.

The continuing inability of the examiners at the PTO to locate and determine the scope/meaning of the terminology and recitations used throughout applicant's currently pending amended claims from applicant's originally filed 1987 disclosure, in spite of years of effort, suggests to the present examiner that there are probably many more absurd (e.g. wholly unsupported) allegations of alleged claim support still hidden below the waterline of the current record (and hidden within the tens of thousands of pending amended claims). Namely, the twisted arguments/allegations of record only seem to represent those which have been exposed/uncovered to date; i.e. the visible tip of an iceberg. <sup>34</sup> If such is the case, then the examiner has no choice but to rely on section 112-1 rejections in order to encourage applicant to provide the much needed clear and accurate explanations as to where the pending amended claims and the subsequently added terminology finds required section 112-1 support from the instant disclosure as originally filed; i.e. obviously, the examiner has no way of "immediately discerning" recited claim limitations if the basis for such recitations exist only within applicant's "*own head*". Further, if the pending claims are truly based on such exemplified absurd (e.g. wholly unsupported) allegations of claim support, then all of applicant's demands for the examiners to determine the scope/meaning of applicant's currently pending claims have been completely disingenuous; i.e. applicant could not possibly expect an examiner to discern (much less "immediately discern") the meaning/scope of the pending claims when the apparent/normal meaning of subsequently introduced terminology is vastly different from the meaning/scope that must be attached to them by way of applicant's arguments (arguments which are not yet part of the record). For example, the examiner maintains that it would be

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<sup>33</sup> While applicant uses *distorted* definitions/interpretations of conventional terminology to justify their subsequent introduction into his original disclosure/claims under 112-1, the record suggests that applicant fears being held to these distorted definition/interpretations should the claims ever be patented. However, applicant should be held to these distorted definitions if they are the basis from which section 112-1 support is obtained from his own disclosure. Otherwise, applicant would be allowed to obtain patent coverage over the subject matter that is literally encompassed by a normal/conventional reading of such art-related terminology when, in actuality, applicant obtained such patent coverage only through a distorted reading of the same claim/limitations/terminology; the claims should be held to their distorted readings.

<sup>34</sup> Additional wholly unsupported allegation of alleged claim support continue to surface as recently as of the filing of applicant's last response [note: "ISSUE I" under the first paragraph of "SECTION X" of this Office action].

improper for applicant to now draft amended claims to literally recite the "downloading of computer software/programming" while, at the same time, antedating prior art by twisting the conventional/apparent meaning of this terminology to be read (i.e. to be misread) on the 1981 description of transmitted cuing codes; i.e. a seemingly blatant attempt to obtain a 1981 priority date for something that applicant did not have in his possession until 1987. Applicant seems to justify such actions by alleging that he has only asserted his right to be his own lexicographer. The examiner thinks not...

D) Again, at first glance, the meaning of many of applicant's currently pending amended claims seems explicitly clear. Specifically, applicant's currently pending amended claims explicitly recite interactive television systems, digital television systems, intermediate television stations for generating user "specific" overlays and/or graphics; etc, ...<sup>35</sup>. However, when one turns to applicant's originally filed 1987 disclosure to locate the required section 112 support for this explicitly recited subject matter, one is immediately lost; i.e. nothing that is now claimed is "immediately discernible" from the originally filed disclosure. Specifically, in reading the original 1987 disclosure, one quickly finds that the explicitly claimed subject matter has no obvious/apparent/"immediately discernible" support within applicant's originally filed 1987 disclosure.

Again, applicant tries to justify this situation by arguing that his "right to be his own lexicographer" gives him the right to draft and submit any amended claim/limitation he wishes as long as APPLICANT himself can allegedly produce, at some later date, an interpretation which allows the amended claims and their amended claim limitations be read back onto something/anything that was described by his originally filed 1987 written description (or as long as applicant can allege that it is the examiner's duty to come up with an interpretation which allows applicant's amended claims' limitations be read back onto something/anything that was described by his originally filed 1987 written description). The examiner maintains that both arguments are wrong. For no matter how applicant now elects to draft his current claims/limitations, said claims/limitations must still meet the requirements of section 112-1; wherein the description requirement of section 112-1 is only met if one skilled in the art would have "immediately discerned" the newly drafted claim/limitation within applicant's originally filed 1987 disclosure. Thus, in contrast to applicant's allegation, the "right to be his own lexicographer" only gives applicant the right to draft and submit those claims/limitations whose alleged interpretations would themselves have been "immediately discerned" by those skilled in the art from applicant's originally filed 1987 written description<sup>36</sup>. Being such, if extensive arguments/explanations

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<sup>35</sup> Note too the wide scope of technology that has been alleged by applicant as having been within, and/or at least alleged to be covered by, patents that are based on applicant's 1981 and 1987 disclosures [SEE: Applicant's own web page attached hereto as "APPENDIX V"].

<sup>36</sup> Applicant might be permitted to add new terminology to the disclosure via amended claims provided that he also explicitly defined the new terminology in a way that was consistent with the original scope of his original disclosure (i.e. appropriate estoppel). However, if for example the term "programming" was used in applicant's originally filed 1981 disclosure as meaning "scheduled radio and television shows" (as it was), applicant is not permitted to come back at a later date with arguments which try to attach a new and broader dictionary definition to the originally disclosed "programming" terminology and then use this new broader definition as the basis/support for drafting claims directed to computer software/"programming" (as seems to be happening). Namely,

must also be submitted by applicant along with the subsequently submitted claims in order to enable one skilled in the art to begin to "discern" that which is now claimed from applicant's originally filed 1987 disclosure, then written description requirement of section 112-1 has been violated because it is the subsequently submitted argument which attempt to complete the originally filed disclosure with respect to the subject matter that must be extensively explained in this way.

Given the present circumstances, the examiner maintains that it is only through the use of the proverbial "sledgehammer", provided by applicant's arguments submitted more than a decade after the original 1987 filing date of the present disclosure, that applicant even begins to impart a sufficient degree of deformation to the clear/apparent meaning of his currently pending claims/limitations as to enable them to be read onto something from his own originally filed 1987 disclosure. There is no way that one skilled in the art would have "immediately discerned" that which is now claimed from applicant's 1987 disclosure without the guidance of such subsequently filed arguments. As noted above, this is a violation of section 112-1.

In summary, it appears that each of applicant's currently pending amended claims might be clearly, distinctly, and explicitly reciting subject matter of an alleged invention that is now recognized applicant. Unfortunately, the subject matter that is now being clearly, distinctly, and explicitly recited by these claims does not appear to be that of an invention that was originally described by applicant, in the required "immediately discernible" fashion, within the originally filed 1987 instant disclosure. The claims themselves appear to represent "NEW MATTER". This issue, and those discussed above, will be revisited in greater detail within the "SECTIONS" that are to follow.

E) Part "A" of this section was provided to establish the fact that the examiner understands that the "immediately discernible" requirement of section 112-1 pertains to the issue of "possession". Having said this, it is noted that parts "B"- "D" of this section have been provided to show that the question of "possession" under section 112-1 is extensively intertwined with section 112-2 issues by the way that applicant has elected to draft his claims; i.e. by the introduction of new terminology of twisted scope/meaning under the guise that applicant is only utilizing his "right to be his own lexicographer". Being such, the rejections of the claims under section 112-1 and section 112-2 may appear, at times, a bit tangled. This should not be construed, in itself, as an indication that the examiner misunderstands the laws that are being applied.

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the definition of terminology that is provided by applicant's original disclosure trumps any dictionary definition as being the proper definition that must be applied/used.

**SECTION IV:** (All of Applicant's Pending Amended Claims Should Fall Under Section 112-1).

2.

**ATTENTION:**

THE WRITTEN DESCRIPTION OF APPLICANT'S 1981 PARENT WAS ITSELF LEFT BEHIND BY THE ACTION, OR LACK OF ACTION, TAKEN BY APPLICANT WHEN DRAFTING AND FILING OF THE INSTANT 1987 DISCLOSURE. THERE IS ABSOLUTELY NOTHING APPLICANT CAN SAY OR DO TO CHANGE THIS FACT. SIGNIFICANTLY, APPLICANT'S FAILURE TO INCORPORATE THE 1981 DISCLOSURE INTO THE PRESENT 1987 DISCLOSURE MEANS THAT ALL SECTION 112-1 SUPPORT FOR THE PENDING AMENDED CLAIMS MUST FIRST BE IDENTIFIED WITHIN APPLICANT'S PRESENT 1987 DISCLOSURE AS ORIGINALLY FILED, BEFORE THE WRITTEN DESCRIPTION OF APPLICANT'S 1981 PARENT DISCLOSURE EVEN NEEDS TO BE CONSIDERED [i.e. one cannot assume that the subject matter of applicant's 1981 disclosure made it into applicant's 1987 disclosure as would have been the case had the 1981 disclosure been

literally incorporated, e.g. either physically or by an *incorporation by reference*, into the 1987 disclosure|.

Given the above, there is a problem with the way applicant has responded to the section 112-1 issues that have been raised by the Office/examiners during the prosecution of many, if not all, of applicant's 329 co-pending applications. To fully grasp the significance of this problem, it must be understood that the requirements of section 112-1 for the current application(s) can only be met if it can be shown that section 112-1 support for each of the pending amended claim existed within the present 1987 disclosure as originally filed and taken alone. Only after all section 112-1 support has been established for the pending amended claims from the originally filed present 1987 disclosure (alone!), is there even a need for one to consult and consider the 1981 parent disclosure and, even then, only for issues relating to claims of priority to the 1981 filing date of said parent.

The reason why applicant's 1981 parent disclosure must be ignored when considering section 112-1 issues is because said 1981 disclosure was never *formally* incorporated into the present 1987 disclosure:

- 1) The 1981 disclosure was not physically copied into the present 1987



disclosure; and

2) The 1981 disclosure was not "*incorporated by reference*" into the present 1987 disclosure.

Being such, applicant has forfeited his right to now claim any and all subject matter from his 1981 parent disclosure which was not carried forward and described in the new 1987 written description at the time of its original filing. There is no question such forfeiture has in fact occurred. For example, the "JULIA CHILDS" embodiment/application that was described in applicant's 1981 parent disclosure was not carried forward into applicant's 1987 disclosure and has thereby been forfeited from being claimed now. Much more (if not all) of the 1981 subject matter has been forfeited too [see "SECTION I" of this Office action].

In light of the above, it is clear from the record that applicant has erroneously addressed section 112-1 issues by citing teachings from the 1981 parent disclosure often without, but sometimes in combination with, teachings from the present 1987 disclosure. Again, the showing of section 112-1 support **must** be obtained from the present 1987 disclosure as originally filed without any assistance from the 1981 parent disclosure; i.e. hence, applicant's error in citing the 1981 parent disclosure. In the past, when applicant was confronted with this error, applicant took the position that they actually elected to cite the 1981 disclosure out of their thoughtfulness for the person(s) reviewing the record because applicant and their experts recognized that the 1981 parent disclosure was significantly shorter than the present 1987 disclosure and took less time and effort to

read/review/understand <sup>37</sup>. More recently, however, when applicant was confronted with making this same error again, applicant took the position that it was all a misunderstanding in that they were confused by what the Office/examiners' meant via terminology such as: "the disclosure as originally filed", "the written description as originally filed", etc,... As explained by applicant, they allegedly believed that the examiners were referring to the 1981 parent disclosure as the "original" disclosure when making section 112-1 rejections..... (even though, in almost the same breath, applicant acknowledged understanding the fact that the required 112-1 support must come from the present 1987 disclosure and not the 1981 parent disclosure).

While the explanations given by applicant for their erroneous citations to the 1981 parent disclosure must be accepted by the examiner, it is noted nonetheless that their alleged *thoughtfulness* for others was a boon to themselves too. Specifically, benefits which were improperly obtained by applicant via their erroneous citations to the 1981 parent disclosure, are evident in the following:

- 1) The present 1987 disclosure is (at best) large, bulky , and difficult to read and/or understand, even by applicant's account <sup>38</sup>, thereby making applicant's task of having to find/cite/establish section 112-1 support for the pending claims from the 1987 disclosure an arduous chore (if not an

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<sup>37</sup> Note the first full paragraph on page 252 of part I of ITC Investigation No. 337-TA-392 which begins "At closing arguments complainant's council argued..." [1997 ITC LEXIS 307, 252].

<sup>38</sup> A feeling applicant's own expert witness elegantly expressed in ITC Investigation No. 337-TA-392 when he stated that: "when I received the '277 patent [i.e. the present 1987 disclosure], my heart truly sank because I knew I would have to read and absorb the patent" [see the discussion starting in the last few lines of part I of 1997 ITC LEXIS 307\*250].

impossible chore). The burden placed on applicant by their need to find/cite/establish the required 112-1 support for the pending claims was obviously lessened by the erroneous citations to the 1981 parent disclosure, if for no other reason, simply because the 1981 parent disclosure was smaller, less bulky, and not as difficult to read and understand when compared to the present 1987 disclosure;

2) If the teachings provided by the 44 pages of the 1981 parent disclosure ever found their way into the 557 pages of the present 1987 disclosure then, by applicant's own admission, they were (at best) scattered throughout the 557 pages of the present 1987 disclosure<sup>39</sup>. Thus, any section 112-1 support which may have been clear and concise in the 1981 parent disclosure, would have been scattered (at best) and/or lost within the 557 pages of the present disclosure. By scattering and/or losing the teachings from their 1981 disclosure within the 557 pages of the present 1987 disclosure, applicant has made the task of re-capturing any clear and concise section 112-1 support which might have existed in the 1981 parent disclosure, via the originally filed present 1987 disclosure, an arduous if not impossible journey.

However, applicant could sidestep the need for this arduous/impossible journey, albeit improperly, through erroneous citations to the 1981 parent

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<sup>39</sup> See the first 4 lines on page 252 of part I of said ITC Investigation No. 337-TA-392 which states that applicant's council admitted at closing arguments of the preceding that: "the disclosure in the 24 columns of the '490 patent [i.e. the 1981 parent disclosure], if indeed it is at all carried forward, is interspersed among some 328 columns of the '277 patent [i.e. the present 1987 disclosure]". The ITC investigation also noted: 1) that the present 1987 disclosure is almost 10 times the length of the parent disclosure and more than 500 pages of text longer than the 44 page parent disclosure; and 2) that applicant's own council admitted that the teaching found in said 44 pages of the 1981 parent disclosure were, at best, "spread around and sometimes stated a little bit differently [in the 557 pages of present 1987 disclosure]". SEE the discussion starting at the top of page 253 of part I of ITC Investigation No. 337-TA-392.

disclosure; i.e. if, and only if, applicant's erroneous 1981 citations were improperly accepted by the examiners/reviewers themselves. The current examiner will make every effort not accept such improper 1981 citations from applicant!

3. As is evident from the discussion of the preceding paragraph, time and time again, applicant has *erroneously* alleged that required section 112-1 support for his pending amended claims can be obtained solely from his 1981 parent disclosure. When confronted, time and time again, applicant has retreated from this position and has acknowledged that section 112-1 support for the limitation of the currently pending claims must come from applicant's present 1987 disclosure as originally filed; i.e. not from the parent 1981 disclosure as referenced by applicant. By now, it would seem reasonable to expect that there would be no more misunderstandings pertaining to this issue. However, for some unexplained reason, applicant still seems inclined to take every opportunity to return to his 1981 parent disclosure when addressing section 112-1 support issues; i.e. even though applicant clearly understands such action to be wrong, erroneous, and irrelevant to the pending section 112 issues. Applicant's illicit addiction to their own 1981 disclosure seems evident in the second full paragraph on page 68 of applicant's last response where applicant tries, but once again, to improperly find a quick fix for his section 112-1 woes via his 1981 parent disclosure:

*“The function of the descriptive requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the*

*specific subject matter later claimed by him.' In re Wertheim, 541 F.2d 257,262, 191 U.S.P.Q. 90, 96 (C.C.P.A. 1976). Applicants rely on the filing date of November 3, 1981. On this date, Applicants filed Application No. 317,510, now issued as U.S. Patent No. 4,694,490 (the '490 patent). The specification of the '490 patent (the '81 disclosure) clearly demonstrates the Applicant had possession of the subject matter presently claimed."*

With respect to the current state of applicant's applications, applicant's position is once again wrong and misleading !!! What the '490 patent (the '81 disclosure) shows is irrelevant to the 112-1 issue currently being addressed because the written description of applicant's 1981 parent was left behind and replaced via the drafting and filing of applicant's present 1987 "new best mode disclosure". Namely, applicant's 1981 parent disclosure was never formally incorporated into the present 1987 present disclosure and thus the written description of said 1981 parent is not part of said present 1987 written description. Therefor the 1981 written description must be ignored when addressing issues under section 112. Simply put, applicant's 1987 written description has literally replaced applicant's 1981 written description as the "present written description" from which **all** section 112 support must now be obtained/shown/derived/provided.

The following is noted:

1) Applicant must be able show that section 112 support for his pending amended claims actually existed in his present 1987 disclosure at the time of its original filing:

2) If section 112 support for the pending claims cannot be found in applicant's original 1987 disclosure, then the search for section 112 support simply ends there: support for the pending claims does not exist and the pending claims fall under section 112; and

3) *Only if section 112 support can first be found in applicant's original 1987 disclosure* must applicant even be afforded an opportunity to use his 1981 disclosure, and even then, only for supporting allegations of "priority" to the 1981 date via showings of "common subject matter".

4. Evidence of record demonstrates that, in the past, applicant and their counsel seemed unsure as to whether the written description of their 1981 parent disclosure had made it into the written description of their present 1987 disclosure. For example, Part I of ITC Investigation No. 337-TA-392 states:

A) That applicant's counsel admitted during closing arguments of that proceeding that: "the disclosure in the 24 columns of the '490 patent [the 44 page 1981 disclosure], if indeed it is at all carried forward, is interspersed among some 328 columns of the '277 patent [the present 557 page 1987 disclosure]". 1997 ITC LEXIS 307, \*252 (emphasis added); and

B) That applicant's counsel made the statement:

*"To the extent -- and I'm unaware of any significant differences between the '490 patent [the 44 pages of the 1981 parent disclosure] and the '277 [the 557 pages of the present 1987 disclosure]. I haven't seen one, and I don't remember it. Certainly, I made an effort early on to determine whether or not the disclosures of the '490 patent [the 44 pages of the 1981 parent disclosure] made their way into the '277 [the 557 pages of the present 1987 disclosure] and although they're spread around and sometimes stated a little bit differently, for all relevant purposes of this hearing, the '490 patent [the 44 pages of the 1981 parent disclosure] is expanded by the '277 [the 557 pages of the present 1987 disclosure]. Its certainly not inconsistent."* <sup>40</sup>

[1997 ITC LEXIS 307, \*252]

In sharp contrast to this past uncertainty, today not only does applicant appear to have new confidence that his 1981 parent disclosure actually made it into his present 1987 disclosure, but applicant now appears to remember having "specifically" incorporated his 1981 parent disclosure into their present 1987 disclosure [NOTE: lines 13-15 on page 68 of applicant's last response]. Applicant's new position and recollections appear to represent 180 degree changes from those past position and recollections as presented before the ITC. For this reason alone, the examiner would be remiss if he were to accept applicant's most

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<sup>40</sup> Here, applicant's council alleged that they were unaware of any "significant differences" between their '490 patent [the 1981 parent disclosure] and the '277 patent [the present 1987 disclosure]. The ITC dismissed this allegation out of hand stating somewhat sarcastically: "there is at least one significant difference in the specifications of the '490 and '277 patents, viz. the fact that the '277 specification is more than ten times the length of the '490 specification." 1997 ITC LEXIS 307, \*253. On a less sarcastic note, the examiner points out that there are many other "significant" differences too [note "SECTION I" of this Office action].

recent memory/allegation at face value.

For practical purposes, given the present circumstances, it seems impossible to determine how much (if any) of applicant's 1981 parent disclosure was actually carried forward into his present 1987 disclosure using the "brute force" approach of trying to compare the respective disclosures in their entirety. Fortunately, such a direct comparison is not required. Specifically, before applicant can even attempt to establish a 1981 priority date for his pending amended claims, applicant must first be able to prove/show that section 112-1 support for the pending amended claims was provided in his present 1987 disclosure at the time it was originally filed (i.e. by at least identifying those portions of the 1987 disclosure which described each/all limitations of each/all pending claims in an "immediately discernible" fashion <sup>41</sup>). If applicant is unable to identify such support in his originally filed 1987 disclosure, then the pending amended claims fall under 112-1 (... no further questions need be asked ... and applicant's 1981 disclosure can be ignored entirely).

5. As prosecution has progressed over the last 5+ years, it seems increasingly apparent that applicant has drafted and/or amended many of his pending amended claims, if not all of his pending amended claims, to literally read on devices/technologies that are in (or are coming into) the marketplace <sup>42</sup>; i.e. the "Weather Star" addressable receiver being but

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<sup>41</sup> The examiner notes that applicant has been asked to provide specific showings of such 112-1 support for each of his pending claims practically from the beginning of prosecution some 5+ years ago.

<sup>42</sup> The examiner's perception appears to be supported by evidence already in the record [See: Civil Action No. 2:95cv242 which was decided on September 8, 1995 by the United States District Court for the Eastern District of Virginia, Norfolk Division (1995 U.S. Dist. LEXIS 14518, \*\*5)]. Also, note APPENDIX V of this Office action.



one example of such devices/technologies <sup>43</sup>. It is the examiner's current understanding that applicant is permitted to draft/amend claims in this manner provided that the resulting claim(s) meet all requirements of section 112 <sup>44</sup>. It is, however, the examiner's belief that the applicant's currently pending amended claims fail to meet these section 112 requirements.

Applicant seems to be of the opinion that his right to be his own lexicographer gives him the right to draft any claim he wishes, provided he can make the argument that the terminology and limitations used in his newly drafted claim can be read and interpreted in some fashion (i.e. any fashion), which allows these terms and limitations to be read onto at least some portions of his originally filed written description <sup>45</sup>. While the examiner acknowledges that applicant has the right to be his own lexicographer, the examiner maintains that this right does not give applicant the freedom to violate other requirements of section 112. For example, the examiner notes that:

1) Section 112-1 requires applicant to be able to show that his original 1987 disclosure, e.g. absent his subsequently filed claims, conveyed with reasonable clarity to one of ordinary skill in the art that applicant was in fact in the possession of his subsequently filed claims (i.e. the alleged invention) at the time that applicant originally filed said 1987 disclosure;

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<sup>43</sup> Civil Action No. 2:95cv242 which was decided on September 8, 1995 by the United States District Court for the Eastern District of Virginia, Norfolk Division (1995 U.S. Dist. LEXIS 14518, \*\*4).

<sup>44</sup> Assuming that "laches" does not apply and that the claims are patentable over the "prior art" too (note APPENDIX VI of this Office action).

<sup>45</sup> THE originally filed written description, and not the 1981 written description of the parent.

2) Section 112-1 requires applicant to be able to show that one of ordinary skill in the art, in reading applicant's originally filed 1987 disclosure, would have *immediately discerned* the limitations at issue in any and all pending claims<sup>46</sup> ; and

3) Section 112-1 prohibits applicant from disclosing a "forest" in his originally filed disclosure only to, at some later date, use subsequently filed claims as a vehicle for selecting "trees" from this forest and declaring the subsequently selected group of trees to be: "my invention!". (Because the subsequently claimed/selected group of "trees" was not specifically identified/recognized by the originally filed disclosure as having comprised an alleged invention, the subsequently claimed/selected group of trees was not adequately described in the original disclosure, the subsequently claimed/selected group was effectively lost/concealed within the forest that was originally disclosed, and/or the subsequently claimed/selected group of trees represents "NEW MATTER")

It is the examiner's position that all of applicant's pending amended claims are in violation of these three requirement of section 112-1. No place is this fact more evident than in

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<sup>46</sup> The examiner maintains that this requirement alone sets the bar at a level which is high enough to reject/sink all of applicant's pending claims under section 112; i.e. the limitations of applicant's pending claims are far from being "*immediately discernible*" from his present 1987 disclosure.

Appendix A of applicant's last response. Even with the tables of this Appendix A sitting in front of one, the limitations of the presented pending claims are anything but "immediately discernible" from applicant's 1987 disclosure as originally filed; i.e. a violation of section 112-1. Worst yet, one must recognize that applicant's Appendix A was not part of applicant's originally filed disclosure and therefor cannot be used as a tool for meeting this "immediate discernible" requirement. Thus, for one is to accept applicant's allegation that his original 1987 disclosure provided adequate support for his amended claims for the reasons set forth in his last response, one must be able to reasonably conclude that the alleged correlations between applicant's amended claims and his present 1987 disclosure, e.g. those correlations that have now been listed in Appendix A of applicant's last response, would have been "immediately discernible" to one of ordinary skill in the art from applicants originally filed 1987 disclosure alone; i.e. without the aid of Appendix A, without the aid of the pending claims, without the aid of non-incorporated 1981 parent disclosure, etc,...

The examiner does not believe that one of ordinary skill in the art could reasonably arrive at such a conclusion. Thus, all of applicant's pending claims should fall under section 112-1 for this reason alone.

6. Appendix A of applicant's last response represents applicant's attempt to *squeeze* section 112-1 support for the amended claims out of his originally filed disclosure. More specifically, Appendix A of applicant's last response uses the terminology and limitations of each of applicant's subsequently filed claims as vehicles for selecting and collecting excerpts

from his originally filed disclosure, allowing applicant to argue that these collected excerpts exemplify the written description which (in applicant's mind) adequately support the respective amended claim. Via this process, applicant uses the *NEW MATTER* of subsequently filed claims to direct the cutting and pasting of his original written description in order to create a collection of descriptions which now allegedly provides, e.g. not provided, section 112-1 support for the *NEW MATTER* of the subsequently filed claims. Simply put, applicant uses *NEW MATTER* to create *NEW DESCRIPTIONS* which are then cited in support of the added *NEW MATTER*.

It is the examiner's position that the written description requirement of section 112-1 requires applicant to show, when properly challenged under section 112-1, that his original disclosure alone (i.e. absent the limitations of pending amended claims, absent teachings of the 1981 parent, and absent the correlations provided by his Appendix A) actually described that which applicant now claims in an immediately discernible fashion; i.e. applicant must be able to show, from his originally filed 1987 written description alone, that he actually recognized/possessed/disclosed the alleged invention of the subsequently filed claims at the time of original filing.

Given the above, a showing of adequate section 112-1 support should be as easy as pointing to that portion/section/example of applicant's original written description which described that which is now being claimed. Applicant has now alleged that his 1987 specification was: "a single cohesive document with each section and example incorporating, extending, and developing the preceding disclosure." If this is true, then identifying 112-1 support should be an easy chore in that applicant should simply be able

to point to the alleged section/example which allegedly (all by itself) incorporated, extended, and developed the preceding disclosure on which it was allegedly based; i.e. assuming such support is in fact immediately discernible as is required. At most, applicant might have to provide a cursory explanation as to how the limitations of the pending claim are supported by such identified "EXAMPLE"/"SECTION". So where is it? Instead of citing a section/example and quickly explaining how support is provided for each claim the cited example/section, applicant feels the need to provide a massive exhibit (i.e. APPENDIX A-C) which maps limitations of the pending amended claims to scattered portions of the present omnibus 1987 disclosure <sup>47</sup>. However, even when one improperly relies on these subsequently filed mappings, the limitations of the claims are still not immediately discernible. This is due, in no small part, to applicant's use of language, wording, terminology, and expressions throughout their pending the amended claims which find no antecedent basis, and therefor find no immediately discernible support, in the present 1987 disclosure as originally filed; i.e. this newly introduced language, wording, terminology, and expressions have not been explicitly defined by applicant's originally filed disclosure as is required when applicant elects to invoke his right to be his own lexicographer.

Throughout the present prosecution, applicant has improperly used the amended claims

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<sup>47</sup> Undoubtedly, applicant might respond to this issue by arguing that his grand submission was somehow required by the actions of Office examiner. Such a position would be ridiculous. All the Office examiner's have ever requested, was for applicant to cite that portion of the disclosure which described that which is now claimed in an "immediately discernible" fashion as is required under section 112-1.

as *treasure maps*<sup>48</sup> for providing the direction that is needed to collect bits and pieces of the original written description which, when taken as a whole, provide some sort of alleged description for that which now claimed via these same amended claims [note appendix A-C of applicant's last response]. The examiner flatly rejects applicant's position that these collected excerpts provide the adequate written description that is required for that which is now claimed in view that the alleged support for the limitations in anything but "immediately discernible". However, even if these collected excerpts were to provide an adequate written description, it would have been the collecting of the excerpts by applicant's newly created/claimed *treasure map(s)* which fulfilled the written description requirement of section 112-1; i.e. not applicant's original written description alone as is required by section 112-1. Via the newly submitted tables of appendix A-C, applicant has simply gone through a circular exercise in which amended claims, filed subsequent to the original filing date of the application, were themselves used as the source of support for their own limitations; i.e. the attempted use of new matter to support the introduction of itself. Simply put, it only through the use of applicant's most recent massive submissions (i.e. appendix A-C), filed 12+ years after the filing of the original 1987 disclosure and 18+ years after the 1981 filing of the parent disclosure, by which applicant now tries to create/provide/complete the section 112-1 support that was

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<sup>48</sup> In light of applicant's latest submissions, the examiner adopts the positions set forth in *related* ITC investigation No. 337-TA-392 [1997 ITC I.E.XIS 307 \*257] that:

1) applicant's citations of alleged support read "like the directions to a treasure hunt....There is a piece here, there's a piece there, its in there somewhere"; and

2) that applicant's pending claims and original 1987 specification "are like ships passing at night in the same ocean, but not necessarily sailing in the same direction."

[see the second full paragraph on page 257 of PART 1 of 2 of ITC investigation No. 337-TA-392]

required of his original written description filed 12+ years ago. The practice of retroactively creating section 112-1 support for limitations of subsequently filed amended claim in any manner is a practice which is unquestionably prohibited under current U.S. patent law.

7. As was recognized by applicant's own experts <sup>49</sup>, the amount of effort that is required to read and absorb much/most/all of applicant's original 1987 disclosure represents nothing less than an unpleasant and difficult task. However, the excessive amount of effort that is needed to read and absorb applicant's originally filed 1987 disclosure simply pales in comparison with the monumental task of trying to decipher the limitations of applicant's currently pending amended claims based on such a difficult disclosure. Specifically, trying to read and understand the currently pending amended claims, whose word selection/usage drastically depart that of applicant's originally filed 1987 disclosure, in the context of said original 1987 disclosure which is difficult to read/absorb in its own right, further explains why the limitations of applicant's pending claims are not "immediately discernible" from applicant's original 1987 disclosure. This situation is in fact a fatal flaw under section 112-1 given the present fact pattern. Namely, the currently pending claims are amended claims which were added to the original 1987 disclosure long after the original 1987 filing date of the present disclosure and, therefor, all recitations found within these claims must be, by the requirements of section 112-1, "immediately discernible" from the originally filed 1987 disclosure itself. Here, it is important to note that the courts have set

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<sup>49</sup> Applicant's own expert witness stated, in ITC Investigation No. 337-TA-392, that: "when I received the '277 patent [i.e. the present 1987 disclosure], my heart truly sank because I knew I would have to read and absorb the patent" [see the discussion starting in the last few lines of part I of 1997 ITC LEXIS 307\*250].

the section 112-1 "bar" high for subsequently amended/presented claims due to the potential introduction of "NEW MATTER" via such subsequently drafted/filed claims.

It must be noted that those representing the PTO have long expressed to applicant the difficulty that the examining corps was having in its effort to ascertain the meaning/scope of applicant's pending amended claims based on applicant's originally filed 1987 disclosure. In fact, near the beginning of prosecution, those representing the PTO asked applicant to submit a communication in each application which would identify at least one concrete example of the alleged support in applicant's originally filed 1987 written description for each of the pending claims as an aid to the examiners. In response to this requests, applicant contended that they were/are under no obligation to provide such examples or explanations and has expressed their belief that it is the examiners' duty to read and understand their 1987 disclosure in order to ascertain the metes and bound of the pending claims. Applicant went so far as to characterize their own pending amended claims as being: "models of clarity".

Given the record before him, the examiner finds applicant's position and directives to be a bit disingenuous. To this point, applicant is reminded that in at least one meeting between representatives of the PTO and applicant, applicant was presented with one of their own independent claims and were asked to explain/summarize where the section 112-1 support for it could be found in their own 1987 disclosure <sup>50</sup>. After more than 20 minutes of near silence, during which applicant and counsel flipped through their own files in an obvious attempt to explain and identify support for their independent claim,

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<sup>50</sup> An independent claim for which applicant had admittedly already been negotiating licensing agreement(s) and therefore a claim with which applicant should must have been intimately familiar.



applicant's representatives indicated that they were unprepared to discuss/explain the alleged support for the claim in question. At this point, applicant and counsel were reminded that the claim in question was an independent claim which inherently represented the broadest patent coverage over which applicant sought the "right to exclude" and, being such, it seemed reasonable and fair to expect that its scope/meaning/support would/should be readily apparent to applicant's representatives without extensive preparation; certainly within the 20+ minutes allotted to applicant and his counsel during the meeting. Yet, applicant and representative insisted on departing the meeting without addressing the meaning/scope/support of the independent claim in question. The examiner believes that this event shows/suggests that at least some of the limitations of applicant's pending amended claims were/are, at times, not "immediately discernible" even to applicant themselves.

The examiner poses the following questions:

- 1) If applicant cannot immediately discern what they have claimed in their own broadest independent claims, then what chance (if any) does one skilled in the art (or an examiner) really have when embarking on this same endeavor for multitudes/thousands of pending independent and dependent claims?
- 2) Is it really reasonable for applicant and their own counsel to dismiss, out of hand, the difficulty that the examiners are having in reading and understanding applicant's pending claims when applicant and his own counsel have shown, on at least one occasion, that they too have difficulty in summarizing/explaining at least one of their broadest independent claims ( at least when not extensively prepared to do so)?

3) Can a broad independent claim actually be considered a “model of clarity” when applicant and their own counsel cannot summarize its meaning/scope/support within 20+ minutes? If so, then exactly what does applicant mean by his expression: “a model of clarity”?

The current record before the Office shows that the PTO/examiners continue to struggle in their attempts to determined the scope and meaning of applicant’s pending claims. The current record shows that the International Trade Commission (ITC) <sup>51</sup> struggled in its attempt to determined the scope and meaning of a few related claims. The current record even shows that applicant and their own counsel have struggled, i.e. on at least one occasion, in their attempts to explain the scope and meaning of one of their broadest independent claims. If such a struggle to understand the presently pending claims in the present application is justified, then the presently pending claims are in fact fatally flawed under section 112-1 because (once again):

1) The pending claims in this application are amended claims which were drafted/filed well after the original filing date of the present disclosure and thus, in accordance with section 112-1, their limitations must be “immediately discernible” from the 1987 disclosure; and

2) One would not have to struggle to understand the scope and meaning of a claim whose limitations meet the “immediately discernible” requirement of section 112-1.

It is the examiner’s position that the currently pending claims are fatally flawed for this reason alone.

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<sup>51</sup> In investigation No. 337-TA-392 [1997 ITC LEXIS 307]

8. The record seems to show that applicant has, at least in the past, drafted claims for the expressed purpose of reading on products which are being developed in the marketplace<sup>52</sup>. If applicant has drafted the currently pending claims for the same purpose, then this might explain many of the problems which have and will be discussed within this Office action, such as:

1) Why applicant appears to persist in his attempt to obtain allowed claims which incorporate terminology that was not present, supported, and/or used in applicant's present 1987 disclosure as originally filed, but which terminology has now come to have widely recognized/accepted meanings in the television art that has evolved since said original filing of applicant's present 1987 disclosure (e.g. the term "digital television"; the term "interactive television"; etc....);

2) Why applicant appears to insist on drafting claims whose interpretations must be pulled, twisted, prodded and stretched by subsequently filed submissions (arguments and explanations) before they even begin to resemble something which was actually described in applicant's originally filed 1987 disclosure; and

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<sup>52</sup> Civil Action No. 2:95cv242 which was decided on September 8, 1995 by the United States District Court for the Eastern District of Virginia, Norfolk Division [ see the last 3 sentences of the paragraph which begins "The defense of laches raised..." on page 899F, Supp.239.\*241 or page 1995 U.S. Dist. LEXIS 14518.\*5 Also, note APPENDIX V of this Office action.

3) Why applicant feels the need to present an unusually and/or overwhelmingly large number of new/amended claims (i.e. 10,000+) that are allegedly based on the relatively limited original written description (i.e. number of words, number of pages, content, etc,...) that is comprised of those cited portions from which all claims allegedly originated.

In fact, given the issues cited above and in the record, one might reasonably believe that applicants have focussed too much of their efforts on drafting claims to read on products in the marketplace, and have failed to focus enough of their efforts on ensuring that their drafted claims find the support that is required under section 112 from the originally filed 1987 disclosure alone *[SEE: "ISSUE #1" that appears within the first paragraph that occurs under the heading "SECTION X" of this Office action]*. This might also explain applicant's apparent need to amend the same claims over and over again in a continuing quest for "further clarity".

**SECTION V:** (Applicant's Pending Claims are not Entitled to the 1981 Priority Date of the Parent for reasons given in "Section I" above).

9. At best, the systems/methods that were described in applicant's 1981 parent disclosure represent "primitive" versions of some of the systems/methods that are now described in applicant's present 1987 disclosure. Because the descriptions of these 1981 "primitive" embodiments were not carried forward into the present 1987 disclosure, applicant has in fact forfeited his right to now claim these primitive embodiments in his currently pending 329 co-pending applications; i.e. the present application included. Specifically, section 112 support for all of the currently pending claims must come from the present 1987 disclosure as originally filed and alone [see "SECTION III" of this Office action]. Being such, all limitations of the currently pending claims are necessarily directed to that which is described in the present 1987 disclosure; namely, the more "sophisticated" systems/methods of the present 1987 disclosure. These 1987 "sophisticated" systems/methods clearly constitute "different" subject matter" from the "primitive" systems/methods whose descriptions were left behind in the 1981 parent disclosure. Accordingly, the "subject matter" of the 1981 parent does not constitute "common subject matter" with respect to the "subject matter" that is now necessarily being claimed and, therefor, the currently pending amended claims are not entitled to the priority of the 1981 filing date of the parent (e.g. the validity of the currently pending claims rests

solely on applicant's 1987 "new best mode disclosure", which represents "new matter" with respect to applicant's 1981 parent disclosure, and thus automatically refutes applicant's claim to the 1981 priority date). In summary, applicant's pending amended claims are not entitled to priority because:

A) Applicant's pending claims cannot be directed to the "primitive" systems/methods of the 1981 parent disclosure because the written description pertaining to these "primitive" systems/methods never made it into the present written description. Thus, via section 112-1, applicant has forfeited his right to claim this "primitive" subject matter here and now;

B) The written description of applicant's 1981 parent did not describe the "sophisticated" systems/methods of the present 1987 disclosure to which all of the recitation of the currently pending claims must necessarily be directed. Thus, there is simply no basis for granting a 1981 priority date to claimed "sophisticated" systems/methods which were not previously described/disclosed in the 1981 parent; i.e. these currently claimed system/methods were not disclosed until the filing of the present disclosure in 1987 and therefor only get the 1987 date.

**NOTE that if the currently pending amended claims, which are necessarily directed to the "sophisticated" systems/methods of the present 1987 disclosure, were improperly granted the 1981 priority date of their primitive ancestors, then said currently pending claims would effectively become "time machines" for transporting these necessarily recited "sophisticated" systems/methods of applicant's present 1987 disclosure back in time to the 1981 filing date of their primitive ancestors. Such time travel is not permitted under current U.S. Patent Law.**

10. In the paragraph that starts on page 91 and extends to page 92 of applicant's last response, applicant again suggests that he is entitled to the 1981 priority date of his parent application simply by showing that the written description of his 1981 parent disclosure met the descriptive requirement of section 112-1 for the currently pending amended claims. This might have been true had applicant's 1981 written description been formally incorporated into applicant's present 1987 disclosure<sup>53</sup>. However, in the present application, this is not true because the written description of applicant's 1981 disclosure was literally replaced by the written description of the present 1987 disclosure given the way in which the present 1987 disclosure was drafted and filed [note "SECTION III" of this Office action]. Therefore, to establish 1981 priority for a given pending amended claim, applicant must actually go through his present 1987 disclosure in order to get back to the 1981 date of his parent disclosure; i.e. applicant cannot go directly to his 1981 parent application as would be the case had the 1981 disclosure been formally incorporated into the 1987 disclosure. Specifically, because of the present fact pattern:

**1) Applicant must first identify exactly where the present 1987**

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<sup>53</sup> CIP applications are often drafted by grafting new written descriptions onto the original written description of the parent application. In such circumstances, the written description of the CIP application literally includes the written description of the parent application and, therefore, the written description of the parent literally constitutes the "subject matter" that is "common" to both applications. Because this "common subject matter" exists within the written description of the CIP, it can be claimed by the claims of the CIP application under section 112-1. Because this same "common subject matter" also exists in the parent application, it is entitled to the priority date of the parent application even when claimed within the CIP application.

In drafting his 1987 CIP application, applicant did not simply graft new written descriptions onto that of the parent application as in the case described above. Instead applicant wrote an entirely new written description which replaced that of the 1981 parent application. Because the written description of applicant's CIP does not literally include the written description of the parent application, one cannot be assume that it represents "common subject matter" at all. Being such, allegation of "common subject matter" and "priority" must now be proven with showings and supporting evidence.

disclosure described in "immediately discernible" fashion that which is now being claimed in the given pending amended claim; and

2) Then, applicant must identify "common subject matter" in the 1981 disclosure which provided this "same" section 112-1 support for the given claim.

Here it must be emphasized that in order for priority to be established, the pending amended claims must be directed to subject matter that is "*common*" to both of applicant's present 1987 written description and applicant's 1981 parent written description. Priority is not established via allegations of "*correlated* subject matter" which is all that appears have been presented and/or alleged in Appendix A and C of applicant's last response [note that the information set forth in the tables of Appendix A appears to have been derived directly from the alleged "correlations" of Appendix C].

11. Again, applicant is not allowed to use allegations of priority as a "time machine" for miraculously transporting alleged inventions from his 1987 disclosure back in time to the 1981 filing date of his parent application. For example, applicant cannot identify the recited "transmission of instructions" in his currently pending claims as being directed to the "downloading of software" as is found only within his present 1987 disclosure, and then legally allege priority for this recited "subject matter" back to the 1981 filing date of his parent disclosure by arguing that the same "transmission of instruction" recitations can be broadly read on the non-analogous transmission of "non-software type cuing/instruction signals" that



was described in the 1981 parent disclosure. These two vastly different interpretations of the same claim recitation encompass different subject matter and not the "common subject matter" that is required for a proper claim to priority. Specifically, applicant is only entitled to priority for that subject matter which he disclosed in 1987 which he previously disclosed in 1981 too. The "downloading of software" described in 1987 was not disclosed in applicant's 1981 parent application and is, therefor, not entitled to priority.

Throughout the present prosecution, when alleging "priority" to the 1981 date of his parent application, it is the examiner's expressed belief that applicant has unwittingly confused his ability to draft "quasi-generic" claims, e.g. a claim which can be interpreted DIFFERENTLY so as to read on DIFFERENT subject matter from his different 1981 and 1987 disclosures, with the process of establishing "priority" wherein it must be shown that a given pending amended claim is directed to subject matter that was itself "*common*"/*disclosed* in both disclosures. Namely, for priority to be granted, applicant must be able to show that the disclosed/claimed subject matter of the present 1987 application represents the same subject matter (i.e. "common" subject matter) which was disclosed/described earlier in his previously filed 1981 parent application; why in the world would (or should) "priority" be granted otherwise? In contrast, in order to read his own pending amended claims on both of his 1981 and 1987 disclosures, applicant has clearly given each claim vastly different 1981 and 1987 claim interpretations which, by definition, constitutes "*different*" subject matter; not the "common subject

matter" that is required for priority. Being such, Appendix A of applicant's last response actually refutes applicant's own claim to priority for his pending amended claims because this Appendix shows, given applicant's own claim interpretations, that the pending amended claims are not directed to "subject matter" that was "common" to both disclosures. For example, "SPAM" has been explicitly cited in Appendix A of applicant's last response as having represented the "subject matter" of the present 1987 disclosure to which limitations from every pending amended claim are directed/supported under section 112-1. Yet "SPAM" itself does not represent "subject matter" found within applicant's 1981 parent disclosure and therefor does not constitute "common subject matter" that is entitled to the 1981 priority date of the parent <sup>54</sup>. The "transmission of instructions" recitations, as discussed earlier in this paragraph, represents another specific example of cited support from applicant's submitted Appendix A which evidences the fact that the currently pending claims/limitations are not entitled to 1981 priority. "Appendix II" of this Office action offers many more showings of such differences too.

12. For emphasis, only if applicant successfully identifies portions of the present 1987 disclosure which supports each limitation of each pending claim under section 112-1 in an "immediately discernible" fashion, need/will applicant even be given the chance to establish priority to the earlier 1981 date. To establish priority to the

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<sup>54</sup> Here, it is important to note that the commands/instructions which were transmitted by the system described in applicant's 1981 disclosure appear to be little more than embedded cuing signals whereas the commands/instructions which were transmitted by the system described in applicant's present 1987 (i.e. SPAM) are clearly of a much more sophisticated "extended teletext" type nature. Clearly, it would be wrong to give applicant's 1981 priority date to applicant's more sophisticated and "new best mode" 1987 embodiments.

earlier 1981 date, applicant must ADDITIONALLY show that the "subject matter" of the portions of the present 1987 disclosure which were identified as having provided section 112-1 support for each limitation of each pending amended claims, was in fact "common" with respect to subject matter previously described in identified portions of the 1981 parent disclosure. "*Common* subject matter", however, is vastly different from applicant's alleged "correlated subject matter" <sup>55</sup>.

It is worth noting that trying to prove the existence of "common subject matter" in applicant 1981 and 1987 disclosures is not an easy or trivial task because even those teachings from the 1981 parent which supposedly made it into applicant's present 1987 disclosure are at best, by applicant's own admission, "worded differently" and "scattered" throughout 557 pages of the new 1987 disclosure; i.e. at best, they too are anything but "immediately discernible"!

13. The examiner notes that terms and phrases that are recited in applicant's pending amended claims are entitled to the 1981 priority date of applicant's 1981 parent disclosure if, and only if, they are used in a manner that conveys "common subject matter"; i.e. subject matter that is common to both the 1987 and 1981 disclosures. Thus, any recited term or phrase which must be interpreted differently

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<sup>55</sup> At best, such a vague correlation is all that applicant has accomplished via the alleged "correlations" outlined in Appendix C of applicant's last response. Significantly, it must be noted that the "correlation" of this Appendix C seems to be the basis from which the citations of dual support in Appendix A of applicant's last response have been derived.

when read back onto the two disclosures, is not entitled to priority<sup>56</sup> (e.g. given the present fact pattern). Specifically, any term or phase which has two different meanings/scopes when read in the context of the two disclosures, respectively, does not convey "common subject matter" and is therefor not entitled to the 1981 priority date of the parent disclosure.

The examiner notes that the original disclosure of the present application defines the terminology "programming" differently than the original disclosure of Parent Application S.N. 06/317,510. Specifically:

a) The original disclosure of the present application explicitly defined the term "*programming*" to mean: "everything that is transmitted electronically to entertain, instruct, or inform including television, radio, broadcast print, and computer programming as well as combined medium programming" [see lines 5-8 on page 11 of the present written description]; while in contrast

b) The original disclosure of Parent Application 06/317,510 explicitly defined the same "*programming*" terminology to mean: "everything transmitted over television or radio intended for communication of entertainment or to instruct or inform" [see lines 4-7 in the abstract of US patent #4,694,490].

As has been fully addressed in "SECTION III" of this Office action, all of the currently pending must derive section 112-1 support from the present application (i.e. the original 1987 disclosure). Being such, when one of these claims recites

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<sup>56</sup> Given the fact that the 1981 parent was not physically incorporated into the present 1987 disclosure.

"programming", one must turn to the 1987 disclosure in order to determine the scope/meaning of the recited terminology. Hence, the recitations of "programming" of the currently pending claims must be interpreted as having the meaning/scope that is set forth by definition "a)" from above. However, the definition set forth for the term "programming" in by the present 1987 disclosure [e.g. definition "a)" from above] is clearly of a much broader scope/meaning than the way this same "programming" terminology was defined within the context of the original 1981 parent [e.g. definition "b)" from above]. Being such, the term "programming" itself does not represent "common subject matter" that is entitled to the 1981 priority date. Again, accepting applicant's claim to priority for a currently pending claim which includes the "programming" terminology would allow applicant to obtain a "time machine" by which the broader 1987 scope/meaning of the "programming" terminology could be illegally carried back into the earlier 1981 disclosure/date of the parent application; i.e. effectively redefining and broadening meaning/scope of the "programming" as it appears within the context of the original 1981 disclosure. This is not allowed under current US Patent Law.

As will be addressed in "SECTION V" of this Office action, applicant appears to have alleged that the terms "instruction", "command", and "data" are all of the same scope/meaning as used within applicant's present 1987 disclosure. Whether true or not, the examiner notes that this terminology takes on different meanings/scopes between applicant's present and parent disclosures and thus is not entitled to the priority date of the parent applicant; i.e. for example, the terminology has been defined to encompass downloaded computer software only within the

present 1987 disclosure, not the 1981 parent [see "APPENDIX II" of this Office action]. Again, accepting applicant's claim for priority for a claim using this terminology would enable applicant to illegally transport the 1987 meaning/scope of the terminology back in time to the 1981 date of the parent application.

14. One of the devices in the marketplace, to which many of applicant's claims appear to be directed, is the "WEATHER STAR"<sup>57</sup>. The "WEATHER STAR" is an addressable receiving device that operates at "intermediate transmission stations" to overlay downloaded regional weather data onto broadcasted national weather TV programming, prior to retransmission by the "intermediate transmission stations"; i.e. thereby "specifically tailoring" the nationally broadcasted weather programming to each region in which the national programming is rebroadcast by "intermediate transmission stations". In contrast to the "WEATHER STAR", the combined medium receiver and display device that was actually described by applicant was a receiver which operated at "ultimate receiving stations"; and not "intermediate broadcast stations" as in the case of the "WEATHER STAR" ("ultimate receiving stations" represent the final destinations, e.g. household receivers, of the TV broadcasts that are broadcast/rebroadcast from the "intermediate transmission stations"). As originally described in applicant's originally filed 1981 parent application, applicant's combined medium receiver

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<sup>57</sup> Note Civil Action No. 2:95cv242 which was decided on September 8, 1995 by the United States District Court for the Eastern District of Virginia, Norfolk Division [ see the last paragraph on page 899F, Supp.239,\*240 and the first paragraph on page 899F, Supp.239,\*241 ]

operated to generate and display "unique", locally generated, user information over received TV programming; i.e. thereby "uniquely tailoring" the received TV programming for each ultimate receiver station/user (i.e. in contrast to "specifically tailoring" as in the case of the "WEATHER STAR"). What is significant here is that the "Weather Star" system operated to download regional weather data to its regional receivers such that the regional data was region "specific" but not necessarily receiver "unique"; i.e. all receivers in each region would receive and overlay the same regional data. In contrast, at least as was originally described in applicant's 1981 parent application, each of applicant's combined medium receivers generated and displayed data which was "unique" to each receiver; i.e. each receiver generated and displayed data derived on the content of a user's "unique" stock portfolio. Only in hindsight and/or as an afterthought, e.g. specifically in a 312 amendment that was filed in application No. 06/829,531 <sup>58</sup>, did applicant realize a desire/need to replace the term "unique" with the term "specific" in claims that were based on his parent 1981 disclosure. Significantly, the changing of this terminology effectively removed from applicant's claims, *merely by chance (?)*, a limitation which clearly highlighted real structural/operational differences between applicant's disclosed/claimed combined medium "ultimate receiver station" and the "WEATHER STAR" "intermediate transmission station". More significantly, as explicitly explained by applicant in said 312 amendment of S.N. 06/829,531, changing "unique" to "specific" in the pending claims represented a real

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<sup>58</sup> Similar amendments were also made to the claims in application 06/317,510.

change in claim scope in that applicant now wanted his claims to explicitly encompass a situation where the user data might not be "unique" as had been originally described in applicant's original 1981 parent disclosure, but which now might only be user "specific" (*but was this actually a situation that had been recognized/possessed by applicant at the time he originally filed his 1981 parent disclosure?*). Most significantly, applicant's alleged justification for changing "unique" to "specific" being that there could obviously (not explicitly!) have been some remote chance that two of applicant's described users/receivers could have actually have contained the same numbers and types of stock shares in their stock portfolios and, if this situation by some unlikely chance occurred, then the user data for these users/receivers would not, literally, be "unique" as was originally described in the 1981 disclosure.

Given the real change in scope that was caused by the introduction of the "specific" terminology to the 1981 disclosure, the current examiner is of the position that the currently pending amended claims which use this "specific" terminology (i.e. in place of "unique") are not entitled to the 1981 priority date of applicant's 1981 parent disclosure in view that applicant's 1981 parent, as originally filed, does not provide adequate section 112-1 support for the use/definition of that has been given to the subsequently introduced "specific" terminology by applicant's subsequently submitted arguments. The point being, that the record shows that the "specific" terminology was not simply added as a broad term to broaden the scope of the claims, but was instead specifically "coined" and "added" to the originally



filed disclosure for the stated purpose of capturing a specific situation which was not conveyed/described in applicant's 1981 parent disclosure at the time of original filing. Again, it is the current examiner's position that applicant's right to be his own lexicographer does not give applicant the license to violate the description requirements of section 112-1 (i.e. a license to add *NEW MATTER*).

## SECTION VI: (All of Applicant's Pending Amended Claims

Fall Under Section 112-2 Too).

15. The term "program" had a specific meaning when used in the context of the radio and television broadcast arts: "a scheduled radio or television show." The examiner maintains that this specific meaning was unquestionably how the "program" terminology was used/defined within the context of applicant's own 1981 parent disclosure; i.e. a fact, written in stone, from which applicant nonetheless still tries to run/escape <sup>59</sup>.

While the term "program" was unquestionably used in the context of applicant's 1981 parent disclosure in the conventional sense to refer to "scheduled radio and television shows", it is not so clear as to whether this specific meaning holds true within the context of applicant's present 1987 disclosure. Specifically, while it is acknowledged that early portions of the present 1987 disclosure explicitly defined the term "program" in a manner that generically encompassed other alleged types of programs and programming from environments outside the radio and television art, it appears that this generic definition of the

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<sup>59</sup> The fact that the term "program" was used in applicant's 1981 in the conventional sense to refer to "scheduled radio and television shows" is not only implicitly clear via its use in the context of the 1981 written description, but it is explicitly clear via the definition provided for the terminology in abstract of the 1981 disclosure [note US Patent #4,694,470]. Applicant's current position that no weight should be given to his own abstract is simply ridiculous especially in view that this abstract only states explicitly that which is already implicitly clear from the rest of applicant's 1981 written description [NOTE: lines 5-13 of column 4, lines 47-49 of column 4, lines 4-11 of column 5 in the context of lines 10-24 of column 17; lines 23-26 in column 6, lines 28-52 in column 10, etc.... (of US Patent #4,694,490)].

"program"/"programming" only holds true in those rare instances where the terminology was being used in the context of 1987 disclosure that was allegedly universal/generic to all distribution environments. More specifically, as best understood by the examiner, the "program" and "programming" terminology in the present 1987 disclosure appears to revert back to its specific/conventional meaning (i.e. *"scheduled radio and television shows"*) whenever and wherever it was used, not in a generic/universal sense, but specifically within the context of radio or television program/programming distribution; i.e. as it was within the context of applicant's 1981 parent disclosure. Being such, any time a pending claim includes recitations which specifically limit that claim to the TV program/programming transmission/broadcast/distribution environment, one must ask himself/herself whether it makes any sense within the context of applicant's 1987 disclosure to read recited "program"/"programming" terminology as having the universal/generic meaning which encompassed environments outside the television and/or radio broadcast art to which the claim is explicitly limited? The answer to this question seems to be: "ABSOLUTELY NOT!" <sup>60</sup>.

16. Applicant contends that he should be allowed to use "television signal/program" terminology to refer to his disclosed "SPAM" message packets rather than, or in addition to, using this same terminology to refer to

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<sup>60</sup> If applicant's claim to the priority of the 1981 disclosure is ever accepted, then all terminology that is used in the claims must be interpreted as having a meaning that is common to both disclosures. Thus, the term "program" would have to be held to the narrower definition of the 1981 disclosure: i.e. "a scheduled television or radio show".

broadcasted/cablecasted television signals which comprised actual television programming/shows. The examiner continues to object to such a use of the "television signal/program" terminology for the following reasons:

1) As best understood by the examiner, applicant's 1987 disclosure described an ancillary/insertion signal transmission system in which ancillary/insertion signals, e.g. in the form of SPAM message packets, were embedded into broadcasted/cablecasted television programs/shows for the expressed purpose of:

A. *Enhancing the content of the broadcasted/cablecasted television/radio programs/shows at the ultimate receiver station(s); and/or*

B. *Controlling the operations performed by downstream devices located at intermediate or ultimate receiver stations.*

Given the above, the examiner maintains that it is improper for applicant to confuse his own transmitted ancillary/insertion signals, e.g. the SPAM message packets, with his own broadcasted/cablecasted television programming/shows into which his own SPAM ancillary/insertion signals were inserted; i.e. the examiner refutes applicant's position that his right to be his own lexicographer gives him the right to cause/create such confusion in the way such well known terminology is being used. More specifically, the examiner maintains that applicant's amended claims and arguments become vague, indefinite, confusing, convoluted, and/or improper when

applicant suggests that he has used well known "television signal", "television program", "digital television signal", and "digital television program" terminology to refer to his own ancillary/insertion SPAM message signals rather than, or in addition to, the cablecasted/broadcasted television signals/programs of his own originally filed disclosure.

2) The examiner maintains that the terminology "a television signal" and "a television program" were used and understood by those of ordinary skill in the art to mean and refer to video signals whose sequences of raster scanned image frames were to be displayable on a standard TV receivers. Likewise, the examiner maintains that the modified version of this terminology, e.g. "a digital television signal" and "a digital television program", was known and understood by those of ordinary skill in the art to mean and refer to digitized versions of such "television signals" and said "television programs". Specifically, the examiner maintains that a "digital TV signal" or a "digital TV program" was understood to be a digitally encoded composite TV signal such as that now transmitted within DBS systems and those that are now obtained by standard MPEG encoding ; i.e. not to insertion/ancillary signals like applicant's own SPAM message packets and conventional Teletext message packets whose purpose was to enhance, and not carry, the content of conventional TV

programs/shows. Simply put, applicant's *SPAM* was not "digital television" in the exact same way that conventional *Teletext* was not "digital television" <sup>61</sup>.

3) Given that set forth in parts "1" and "2" of this paragraph, the examiner points out that the only place within applicant's entire 1987 disclosure where there is any suggestion as to the transmission of "digital television" was within the description of "Example #7" that begins on page 288 of the written description. For the reasons which were fully addressed in the last Office action, the examiner maintains his position that this description was not enabled by the original disclosure <sup>62</sup>.

4) In light of the above, it is the expressed intent of the examiner to properly reject all occurrences of the terminology "digital (or digitized) television (or TV) program (or programming or signal or

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<sup>61</sup> The examiner notes that such a bastardized use/definition of the "digital television" terminology might have been accepted had this use/definition been explicitly coined by applicant's disclosure as originally filed (i.e. as required when an applicant wishes to employ his right to be his own lexicographer). Such a bastardized use/definition of the "digital television" terminology will not be accepted now in view that it materialized via subsequently filed amended claims pending 13+ to 19+ years after applicant's original filing; i.e. materializing in the hindsight afforded by 13+ to 19+ years of real technological trends, advancements and innovations that have occurred in the television art since applicant's original filing. Preventing invention-via-drafting-of-amended-claims is precisely why the bar is set so high via the written description requirement of section 112-1 with respect to the adding of "NEW MATTER"; specifically, why the limitations of amended claims must be "immediately discernible" within the disclosure as originally filed. Allowing a bastardized use/definition of terminology to be introduced into claims via amendment flies in the face of this "immediately discernible" requirement of 112-1.

<sup>62</sup> The examiner concurs with the expert testimony of Mr. Schreiber which as cited in *related* ITC investigation No. 337-TA-392 [1997 ITC LEXIS 307 \*257] that the limited description of "digital television programming" in applicant's 1987 disclosure would not have been enabling of "digital television programming" [see the discussion which begins at \*255 in PART I of 2].

signals or content )” under section 112-1 and/or section 112-2,  
wherein:

A. In those instances in which the claimed terminology is used by applicant to refer to SPAM message packets, the claims should be rejected under 112-2 as being used in a manner which is repugnant to its normal meaning (note part “2” of this paragraph); and

B. In those instances where the claimed terminology is used to refer to a true/conventional digitized television signal (i.e. that of applicant’s “Example #7”), the claims should be rejected under 112-1 as being not enabled (note part “3” of this paragraph).

However, because of the confusion which clouds the record, the examiner finds it difficult to impossible to properly identify which interpretation applicant intends to give to each occurrence of the “digital (or digitized) television (or TV) program (or programming or signal or signals)” terminology that is recited in the pending claims.

Therefor, the examiner has found it difficult to impossible to determine which one of the two categories of 112 rejection should be applied to each occurrence of the “digital (or digitized) television (or TV) program (or programming or signal or signals)” terminology in

the pending claims <sup>61</sup>. Thus, any assistance that applicant can provide in identifying the intended interpretation of each “digital (or digitized) television (or TV) program (or programming or signal or signals)” recitation that appears in the claim would be very helpful in clarifying the record; i.e. if applicant is willing to identify what “digital signal/program” is being claimed at each occurrence, then the examiner will be able to specifically set forth the grounds under section 112 on which it is being rejected.

17. In applicant's latest response, applicant appears to take the position that the U.S. Patent #3,906,480 to Schwartz et al. disclosed structure that was representative of:

*“the means needed to format and transmit digital television signals in a manner compatible with all the methods and apparatus disclosed in [his] specification.”*

This position appears to be way wide of the mark and seems silly/absurd/ridiculous .... (especially if the term “digital television signals” in this allegation is intended to

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<sup>61</sup> Applicant has submitted argument's in which he seems to suggest/allege that, in at least some situations, the examiner has failed to understand that what is actually being claimed is the digital nature of SPAM messages rather than the digital nature of TV programming. If this is true, the use of the “digital” terminology in the claims/disclosure also appears to be used applied inconsistently raising yet further section 112 issues.



refer to digital/digitized TV programming/shows as discussed in the preceding paragraph of this Office action). Clearly, U.S. Patent #3,906,480 to Schwartz et al. described a computer display system which had absolutely nothing to do with the formatting, the transmission, and/or the display of digital or digitized television programs/shows. Applicant seems somehow confused and/or misled by the mere presence of "digital television" terminology in the title and body of this U.S. patent. Nonetheless, the fact that applicant has explicitly pointed to such unrelated prior art as having been representative of the "*means*" on which his disclosed/claimed methods and apparatus were (are) based, emphasizes the seriousness of the issues which have been raised by the examiner under both section 112-1 and section 112-2 concerning applicant's own use of such "digital television" and "digital programming" terminology throughout his own disclosure and pending amended claims. Specifically, applicants citation of, and explicit reliance on, an unrelated Schwartz et al. patent adds further confusion to an already confused record and gives further credence to the section 112 rejections that are already of record <sup>64</sup>.

Given the above, applicant is again requested to provide evidence (e.g. *related* prior art) that actually shows that "*the means needed to format and transmit digital television signals in a manner compatible with all the methods and apparatus disclosed in*

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<sup>64</sup> Again, the examiner concurs with the expert testimony of Mr. Schreiber which was cited in *related* ITC investigation No. 337-TA-392 [1997 ITC LEXIS 307 \*257] that the limited description of "digital television programming" in applicant's disclosure would not have been enabling [see the discussion which begins on page 255 of PART I of 2].

*[his] specification*” was in fact notoriously well known in the art as alleged to have been the case by applicant from the time he originally filed is 1987 disclosure. Alternatively, applicant is asked to explain how the apparently *unrelated* Schwartz et al. patent provides such a showing as has now been alleged by applicant in his latest response. <sup>65</sup>

18. In applicant's last response, it appears to be applicant's position that the examiner has erred under section 112 by improperly assuming that applicant is claiming “digital television” when he recites “digital television” in his pending amended claims. More specifically, applicant seems to be suggesting that the examiner's section 112 positions might not be correct because applicant might not actually be claiming “digital television” when applicant recites “digital television” in his pending amended claims; i.e. applicant suggests that he might actually be claiming “SPAM” when he recites “digital television”. The examiner rejects applicant's insinuations in view: 1) that applicant's “SPAM” does not fall within the commonly accepted meaning of “digital television”; and 2) that applicant at least failed to properly execute his right to be his own lexicographer by explicitly defining and limiting the term “digital television” to have the uncommon/unusual meaning of “SPAM” as now alleged/claimed. In light of the above and the record

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<sup>65</sup> If when applicant uses the “digital television” terminology to actually refer to “digital television signals”, then the examiner maintains that evidence is still needed to show “enablement”; i.e. a section 112-1 issue. This “enablement” issue appears under a section 112-2 heading only for convenience of explanation.

before him, the examiner is now concerned that applicant might be purposefully drafting amended claims to read on subject matter that he clearly did not have in his possession at the time of original filing; i.e. namely "digital television". To the extent of the examiner's understanding, what applicant actually had in his possession was a supplemental data channel, carried within the VBI of a conventional analog TV programming broadcast, through which digital enhancement/control/monitoring data could be distributed along with the transmitted analog television signal broadcast. This, even by today's standards, constitutes nothing more than an "extended" Teletext transmission system <sup>66</sup>; it certainly did and does not constitute "digital television" as commonly known/understood by those of ordinary skill in the art.

19. The examiner notes that in the 312 amendment filed in application S.N. 08/447,415 [note "Exhibit H" of the Rule 1.181 Petition that was filed in March of 2000 in application S.N. 08/470,571], applicant changed the term "software module" to read "instruction module" because the examiner had pointed out that the alleged support for this limitation, as identified by applicant himself, was a disclosed "data module". In the REMARK section this 312 amendment [see page 6] applicant alleged that the amendments which changed "software module" to read "instruction module" did not: *"change the scope of the claims"*. If this is truly

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<sup>66</sup> An extended Teletext system is a conventional Teletext system that has been modified extended to carry other types of data besides text and graphics data, such as "Telesoftware".

applicant's belief, then one must conclude that it is applicant's position that the expression "a software module" was synonymous with the expression "an instruction module" and with the expression "a data module"; i.e. applicant has explicitly argued that a claimed "software module" has the exact same scope as a claimed "instruction module" and has explicitly cited a "data module" as the disclosed support for the claimed "software module"/"instruction module" recitations. Being such, there appears to be no difference in applicant's mind between the meaning/scope of the terms "software", "instruction", and "data"; i.e. at least in when they are used to modify the term "module". To the examiner, applicant's position/belief appears to be counter-intuitive at best. In any event, the examiner maintains that such arguments made by applicant justify section 112 concerns over applicant's use of the "software", "instruction", and "data" terminology in the pending claims. Specifically, do these terms have the same scope and meaning as has apparently been alleged?:

- 1) if so, then why are different terms needed/used when such only creates unnecessary confusion?; and
- 2) if not, then how are the terms differentiated in light of applicant's REMARKS, arguments, etc,... as exemplified above?

20. Early in applicant's present 1987 disclosure: 1) the term "original transmission stations" was formally defined as having been used, thereafter, to refer to stations that originate broadcast transmissions; 2) the term "intermediate transmission stations" was formally defined as having been used, thereafter, to refer

to stations that receive and retransmit said broadcast transmissions; 3) the term "ultimate receiver stations" was formally defined as having been used, thereafter, to refer to stations where subscribers view programming; and 4) the term "subscriber stations" was formally defined as having been used, thereafter, to refer to the entire group/class of stations consisting of both said "intermediate transmission stations" and said "ultimate receiver stations" [NOTE: the last 12 lines on page 40 of the present written description]. In contrast, it is noted that the term "receiver station" was never formally defined within the present 1987 disclosure. Instead, the meaning/definition of the "receiver station" terminology changed **depending on the context within which it appeared**. More specifically, there exists:

1) Sections of the originally filed 1987 disclosure in which the "receiver station" terminology was specifically used to refer to "intermediate transmission stations" [note lines 28-32 on page 340 of the present disclosure as read in the context of lines 11-32 of said page];

2) Sections of the originally filed 1987 disclosure in which the "receiver station" terminology was specifically used to refer to the "ultimate receiver stations" [note: the use of the term in lines 12-17 on page 12 of the present 1987 disclosure; the use of the term in the context of the descriptions that appear under the heading "BRIEF DESCRIPTION OF THE DRAWINGS" on pages 16-18 of the present disclosure (i.e. it only appears in the descriptions of figures 1, 3, 7D, and 7E pertaining to URSs); and the use of

the term in 5-11 on page 539 of the present disclosure], and

3) Sections of the originally filed 1987 disclosure in which the “receiver station” terminology, like the newly coined “subscriber station” terminology, was specifically used to refer to the “intermediate transmission stations” and to the “ultimate receiver stations” as a combined group [note lines 11-17 on page 536 of the present disclosure].

Given the above, the examiner maintains that one must be careful so as to properly interpret the use/meaning of the “receiver station” terminology in a given claim according to the context in which it is being recited in said claim. Specifically, when a claim uses the “receiver station” terminology in the context steps/structure for actually combining data and programming into a user specific multi-media display/presentation, the “receiver station” terminology should be held to its “ultimate receiver station” definition/meaning in view that “ultimate receiver stations” were the only stations described in the present 1987 disclosure which were capable of having produced said combined multi-media displays/presentations [note lines 14-25 on page 39 of the present disclosure]; i.e. applicant’s disclosed “intermediate transmission stations”, as described, were not capable of having provided such displays/ presentations. Likewise, when a claim uses the “receiver station” term in the context steps/structures for relaying/retransmitting received programming broadcasts, the “receiver station” terminology should be held to its “intermediate transmission station” definition/meaning in view that “intermediate transmission stations” were the only stations described in the present 1987

disclosure which were capable of having received and retransmitted such  
broadcasted programming; i.e. applicant's disclosed "ultimate receiver stations", as  
described, were not capable of having provided such program retransmissions.

## SECTION VII: (Evidence of a Shell Game?)

21. Throughout the prosecution of their 329 co-pending applications, applicant has amended the same claims over and over again, in successive amendments, often only for the alleged purpose of providing “clarity”. The examiner points out that this process of continuously amending large numbers of claims for the sake of “clarity” effectively, and perhaps unfairly, creates moving targets for the Office/examiners to hit/address; i.e. it creates a burdensome situation for the Office/examiners in any event. This “*moving target*” approach to prosecution takes on a more ominous/disturbing complexion when there appears to be some evidence that applicant is recycling previously presented claims/issues within the movement, and is presenting the same claims/issues in different applications that are before different examiners, without notifying the Office/examiners to the fact that presented claims/issues are recycled ones and /or ones that have been presented a multiple of times. The examiner is not objecting to what applicant seems to be doing (i.e. recycling claims/issues and presenting duplicate claims/issues in different application before different examiner’s), but the examiner is strongly objecting to what applicant seems not to be doing (i.e. formally notifying the Office/examiners when claims/issues have been considered elsewhere in the record). The following four examples have been cited to exemplify this situation:

- 1) In lines 10-12 on page 32 of the Rule 1,181 Petition that was filed in March of 2000 in application S.N. 08/470,571, applicant argued that



the *Administrative Requirement* was/is unfair because it requires applicant to resolve all conflicts between claims in different applications and therefor:

*“compels [applicant] to narrow their claims without the benefit of a substantive determination how others may potentially interpret applicants [claims]”.*

By taking this position, applicant appears to be admitting that they have been intentionally presenting conflicting claims within different applications for the expressed purpose of obtaining potentially different interpretations from “others”. However, if this is true, then one should be able to locate statements in the record where applicant has brought such conflicting claims/issues to the attention of the Office/examiners in view that the record is replete with applicant’s pledges to either: 1) maintain a patentable demarcation between claims in co-pending applications; or 2) to make a good faith effort to alert the PTO when conflicting claims have in fact been treated differently. A cursory review of the record by the examiner has failed to locate even one example of where the PTO was alerted as to the intentional presentation of conflicting claims/issues on the part of applicant. Thus, the obvious question arises: *If applicant has in fact knowingly and intentionally presented conflicting claims/issues in different applications to obtain different interpretation from others as their statements in the 181 Petition seem to suggest, then why have they*

*failed to alert the Office/examiners of such conflicts as pledged?*

2) On 4/14/98, the examiner of record rejected claims 48-63 of application S.N. 08/471,024 under section 112. In response to this rejection, applicant amended claims 48-63 on 10/14/98 by deleting the recited "completed" terminology from these claims for the purpose of, as stated by applicant, providing "clarity". However, when applicant transferred these same claims into the respective consolidating application (i.e. as claims 167-182 of current application S.N. 08/470,571), applicant recycled the this issue by re-introducing the previously deleted "completed" terminology back into the claims without ever going back and addressing the issue which caused the terminology to be deleted in the first place; i.e. without explaining why the "completed" terminology had not caused the section 112 problems alleged by the previous examiner, and/or without explaining why the deleting the "completed" terminology was no longer needed for "clarity" as previously alleged.

3) Throughout the present prosecution, applicant has acknowledged that section 112-1 support must come from his present 1987 disclosure and not his 1981 parent disclosure. Yet, time and time again, applicant seems to forget this fact and returns to old ways of improperly addressing section 112-1 support issues through erroneous

and irrelevant citations to his 1981 parent disclosure. This forgetfulness seems to evidence ongoing efforts on the part of applicant to misdirect the focus of the section 112-1 issues to his 1981 parent disclosure: possibly indicating that applicant recognizes that it is difficult/impossible to identify section 112-1 support for the limitations of his pending claims from his originally filed 1987 disclosure in a manner that is "immediately discernible"; possibly indicating that applicant recognizes that it will be difficult/impossible to provide sufficient evidence needed to show "others" that the required section 112-1 support existed in his present 1987 disclosure at the time it was originally filed; possibly indicating that applicant has in fact left his "best mode" behind in the 1981 disclosure by the drafting and filing of the present 1987 disclosure; possibly indicating something else..... In any event, there seems to be little doubt that applicant's 1987 disclosure is difficult to read and/or absorb; i.e. even by the accounts of applicant's own expert witnesses <sup>67</sup>. For this reason alone, it would be no surprise if applicant wished to avoid having to confront his own 1987 disclosure when addressing issues under section 112-1. Unfortunately, applicant has no choice. Specifically, the use of his 1981 parent disclosure to address section 112-1 is in fact prohibited and is not a legal or valid alternative. [See

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<sup>67</sup> Applicant's own expert witness seems to have elegantly captured this fact during ITC Investigation No. 337-TA-392 when he stated: "when I received the '277 patent [i.e. the present 1987 disclosure], my heart truly sank because I knew I would have to read and absorb the patent" [see the discussion starting in the last few lines of part I of 1997 ITC IEXIS 307\*250].

the preceding paragraphs of this Office action for greater details].

4) Applicants appear to have made a 'material to patentability' allegation in a second co-pending application even though:

a) they appear to have taken countervailing actions, earlier, in a first co-pending application when amending its 'to avoid the prior art' 'for reasons of patentability';

b) the same allegation of 'material to patentability' had been made, addressed, and dropped in the first co-pending application prior; and

c) the Examiner of the second co-pending application was not informed of the earlier countervailing action in the first co-pending application.

Moreover, and even later, Applicants seem to have made yet the same allegation 'material to patentability' 'to avoid the prior art' and 'for reasons of patentability' in a third co-pending application even though the Examiner of the third co-pending application was not informed, yet again, of the earlier countervailing action.

It is fact that what a single prior art reference teaches is uniform, and does not change, from co-pending application to co-pending

application. Being such, there is no way to justify any allegation which creates, or attempt to create, countervailing estoppel in different ones of co-pending applications with respect to a single prior art reference. Unfortunately, such appears to have occurred during the prosecution of applicant's 329 co-pending applications as is evidenced in the following:

**A) The First Instance (U.S. co-pending application no. 08/446,431) on February 24, 1998.**

In the first co-pending application, the first Examiner rejected claim 13 as anticipated by Campbell et al (U.S. patent no. 4,536,791) under 35 U.S.C. 102(e). 102(e) is a finding of fact. Hence, the first Examiner made a factual determination that Campbell et al taught "one of simultaneous presentation and sequential presentation".

See first Office action on the merits paper 12 page 23 paragraph 23 received 2/14/97.

In response, Applicants did not recognize that Campbell et al taught "one of simultaneous presentation and sequential presentation". For their sole allegation 'material to patentability' for 'distinguishing over Campbell et al', Applicants alleged that Campbell et al "...is completely silent on...one of simultaneous presentation and sequential presentation..."; See paper 15 page 36 lines 9-11.

However, in the subsequent final rejection, the first Examiner made his final determination that Campbell et al did, in fact, teach “one of simultaneous presentation and sequential presentation”. See paper 16 pg 10 para. 8.<sup>68</sup>

In the subsequent response, Applicants amended claim 13 ‘to avoid the prior art’ (Campbell et al) ‘for reasons of patentability’. See paper 17 page 2 received 2/24/98.

**B) The Second Instance** (U.S. co-pending application no 08/441,577) on August 6, 1998.

In the second co-pending application and before a second Examiner, Applicants later alleged that “one of simultaneous presentation and sequential presentation” was, alone, ‘material to patentability’ for ‘distinguishing over Campbell et al’... “...Campbell lacks any concept of simultaneous or sequential output presented...” . See Amend D paper no. 14 pg 36 lines 10-13.

However, this allegation was made even though Applicants had taken the countervailing action earlier in the first co-pending application, and even though they did not provide the second Examiner with the ‘information’ that they had earlier

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<sup>68</sup> Note: part “9)” of “SECTION II” of this Office action.

amended the first application to 'avoid the prior art'(Campbell et al) 'for reasons of patentability'.

C) The Third Instance (U.S. co-pending application no. 08/484,858) on June 16, 1999.

In the third co-pending application before yet a third examiner, Applicants once again alleged that "one of simultaneous presentation and sequential presentation" was 'material to patentability' for 'distinguishing over Campbell et al' even though Applicants had taken the countervailing action earlier in the first co-pending application, and even though they did not provide the third examiner with the 'information' that they had earlier amended the first co-pending application to 'avoid the prior art'(Campbell et al) 'for reasons of patentability'.

Particularly, on June 16, 1999, there was a personal interview. The topic was the non-patentability of one or more claims under 37 C.F.R. 313(b)(3). In attendance were Applicant Mr. John C. Harvey and representatives Messrs. Donald J. Lecher and Mr. Thomas J. Scott, Jr. as well as Acting Director Jim Dwyer, Supervisor Andrew Faile, and Examiner William Luther. When discussing claim 9, Applicant Mr. Harvey alleged before Examiner Luther, and

Messrs. Dwyer. and Faile, that Campbell et al did not teach "combined medium presentation" (claim 9 line 7) and that the claim 9 "combined medium presentation" was 'material to patentability' for 'distinguishing over Campbell et al'.

However, Examiner Luther explained, that the Campbell et al 'video presentation' is one kind of 'presentation' and the Campbell et al 'audio presentation' is another kind of 'presentation' so that the claim 9 "combined medium presentation" read squarely on the combined audio and video presentation of the Campbell et al television. See Campbell et al col 17 lines 58-61 and the written description corresponding to Figures 11, 12, and 13.

Mr. Dwyer said that the proper standard for Examiner Luther to apply is the 'broadest reasonable interpretation' standard when considering patentability. Mr. Dwyer then said that, while Examiner was not unreasonable for finding that "combined medium presentation" read on the Campbell et al 'audio presentation' combined with the Campbell et al 'video presentation', when the specification provides definitions for terms appearing in the claims then the specification can be used for interpreting the claim language.

In response, Mr. Harvey alleged that Campbell et al does not teach "our combined medium presentation". Mr Harvey



said "our combined medium presentation" is "one of a sequential and simultaneous presentation", and that Campbell et al "does not teach" "one of simultaneous presentation and sequential presentation". Mr. Scott then specifically alleged, once again<sup>69</sup>, that "one of simultaneous and sequential" was 'material to patentability' when alleging that it "patentably distinguished over" Campbell et al. Mr. Dwyer asked Examiner Luther whether he would indicate patentability if "one of simultaneous presentation and sequential presentation" was substituted for "combined medium presentation". Examiner Luther declined.

In response to Examiner Luther's declination, Mr. Scott indicated to Mr. Dwyer, Supervisor Faile, and Examiner Luther that he would seek a "writ of mandamus" and "*judicial review*" if the third co-pending application was not patented. Mr. Harvey, Mr. Scott, and Mr. Lecher did not, however, inform Mr. Dwyer, Mr. Faile, and Examiner Luther that Applicants had earlier taken the countervailing action of amending the first co-pending application to 'avoid the prior art' (Campbell et al), with respect to "one of simultaneous presentation and sequential presentation", 'for reasons of patentability'.

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<sup>69</sup> It is noted that same attorney, Mr. Scott, is the undersigned attorney for the first and second instances.

## SECTION VIII: (THE "WOODS").

22. Applicant has disparagingly characterized the examiner's mind as: "*a woods*".

Is applicant really surprised? One needs only to read *Investigation No. 337-TA-392 of the International Trade Commission (ITC)*<sup>70</sup> to appreciate how difficult it was for that body to deal with a mere handful of applicant crafted claims (i.e. less than 10 of them). Now multiply this number a 1000+ times, literally, and one arrives at the 10-20 thousand applicant crafted claims which are part of the record that is currently before the Office/examiner. To try to picture all of the issues which are associated with these 10 to 20 thousand claims, using the difficulties faced by ITC as indicator, is to begin to picture the real forest to which applicant alludes.<sup>71</sup>

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<sup>70</sup> 1997 ITC LEXIS 307

<sup>71</sup> As patent applications go in the broadcast art, applicant's instant 1987 disclosure weighs in on the heavy side of the spectrum comprising a very plump 557 pages of written description. Using the claim numbers set forth above, it can be conservatively estimated that applicant has submitted between 18 and 36 claims for every one of the 557 pages of this lengthy 1987 instant description: i.e. about one claim for every 8.5 to 17.7 words over the entire 557 pages. This claim to description ratio climbs to much higher levels when one considers only those portions of the 1987 written description on which the claims are actually based. For example, applicant's own expert witness, Mr. Davis, testified in the above cited ITC INVESTIGATION that, "you don't need to read all 310 columns" of the 1987 disclosure as printed in applicant's '277 patent in order to understand it, "you can gain a complete understanding of what's going on by reading and focussing on the first 25 to 30 columns" (emphasis added) [SEE: 1997 ITC LEXIS 307, \*249]. These 30 columns correspond to about 57 pages of the 1987 written description which translates to a ratio of one submitted claim for every 1 to 2 words of written description. The claim-to-word ratio also *sours* when one considers those of the 10-20 thousand submitted claims for which applicant has alleged priority to portions of the relatively brief 1981 written description (i.e. like those of the present application). Given the above, the examiner asks: "Who grew the woods to which applicant now alludes?"

## **SECTION IX: (Rejections Under Section 112-2)**

23. The disclosure is objected to because of the following informalities:

24. Claim 64-66 and 167-182 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is maintained that all of the currently pending amended claims are at least indefinite for the reasons which were addressed in "SECTION V" of this Office action. In addition, the following section 112-2 problems are hereby cited:

1) In claim 64, line 2, "said first data" does not have clear antecedent basis and is indefinite.

2) Claim 64 is confusing and indefinite because it is not clear how both a first and second data can be processed to generated a locally generated image (see lines 3-5) when only one of the first and second data is actually received from the remote video source (note lines 1-2). Clarification is needed.

3) In claim 65, lines 7 and 8, "said first discrete signal" does not have clear antecedent basis and is indefinite.

4) As disclosed on pages 25 and 26 of the instant disclosure, applicant's alleged invention locally generates the image that is shown in figure 1A wherein this locally generated image comprises a graphic image component (i.e. the "red" line)

which appears over a "colored" (i.e. *more correctly*, "*colorless*") black background [note lines 9-14 on page 25 of the instant disclosure]. It seems confusing and appears to be misdescriptive to attach the "second completed full-screen graphics image" label to such an image in view that this image actually appears to be nothing more than a full-screen video image frame that contains a minimal amount of graphic symbol content (note lines 19-26 of claim 179); e.g. the exact meaning/definition that applicant has given to the newly introduced/coined "second completed full-screen graphics image" terminology remains unclear. Similar clarifications are needed with respect to claims 167-178 and 180-182.

As disclosed on pages 25 and 26 of the instant disclosure, applicant's alleged invention appears to receive TV programming in which the video signal component of the received TV programming includes a graphics/text information content of the type that is shown in figure 1B of applicant's written description; i.e. graphic/text image components over some type of colored background. It seems confusing and appears to be misdescriptive to attach the "first completed full-screen graphics image" label to such a TV programming signal in view that this signal actually appears to be nothing more than a series of TV frames of a standard TV that contain a minimal amount of graphic/text image symbols; e.g. again, the exact meaning/definition that applicant has given to the newly introduced/coined "first completed full-screen graphics image" terminology remains unclear. Similar clarifications are needed with respect to claims 167-178 and 180-182.

25. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947).

1) The term "interactive video apparatus" in claim 56 appears to be used in the claim to refer to "signal processing apparatus" of figure 7c which operated to produce a video overlay based on data stored in a local data base wherein the data of the local data base is automatically updated with data obtained from a remote data base via an automatically established telephone connection; i.e. applicant seems to allege that the addition of the term "interactive video apparatus" to the amended claim is supported by the fact that the originally disclosed apparatus performed a process of obtaining current stock prices by automatically accessing a remote data base [note pages 1-3 of 231 in appendix A which has been attached to applicant's latest filing]. The examiner refutes applicant's allegation pointing out that the accepted meaning of the term "interactive", e.g. as evidenced by "The IEEE Standard Dictionary of Electrical and Electronics Terms", is:

"a system or mode of operation in which each user entry causes a response from or action by the system".

Applicant's apparatus, as originally disclosed, was not "interactive" in context of the normal/accepted meaning of this terminology in the TV/RADIO arts.

1) The term "interactive video apparatus" in claim 56 appears to be used in the claim to refer to "video/combined medium receiver station" of figure 1 which, as

with the apparatus of figure 7c, operated to produce a video overlay based on data stored in a local data base wherein the data of the local data base is automatically updated with data obtained from a remote data base via an automatically established telephone connection. However, with respect to figure 1, applicant seems to allege that the addition of the term "interactive video apparatus" to the amended claim is supported by the fact that the originally disclosed receiver obtained description information (allegedly via the "first request") and obtained current stock prices by automatically accessing a remote data base (allegedly via a second request) [note pages 1-3 of 231 in appendix A which has been attached to applicant's latest filing]. The examiner refutes applicant's allegation pointing out that the accepted meaning of the term "interactive", e.g. as evidenced by "The IEEE Standard Dictionary of Electrical and Electronics Terms", is:

"a system or mode of operation in which each user entry causes a response from or action by the system".

Applicant's apparatus, as originally disclosed, was not "interactive" in context of the normal/accepted meaning of this terminology in the TV/RADIO arts.

3) The term "downloadable" in claims 75 has been used by applicant, with reference to the 1981 disclosure, to mean "the transmission of instruction signals" and/or "analyzing of a transmitted identifier signal" [see page 24 of 231 in appendix A of applicant's last response]. This is repugnant to the accepted meaning of the term, e.g. as evidenced by "The IEEE Standard Dictionary of Electrical and Electronics Terms", which is:

*“the transferring of some collection of data from a memory of a computer to another memory”.*

More specifically: a) applicant's originally described “instruction signals” and “identifiers” did not constitute *collections of data* within the conventional meaning/context of the term “downloadable”; and b) applicant's originally described “instruction signals” and “identifiers” did not constitute *collections of data* which were transferred from a memory of one computer to another memory within the conventional meaning/context of the term “downloadable”. Claims 152 and 167 have similar problems.

This situation also illustrates a dilemma that the examiners are facing when trying to read and understand what it is that is now being claimed. Specifically, terminology which might be clear and definite when one looks to the instant 1987 disclosure alone, becomes confusing and indefinite when read in light of applicant's arguments; arguments which attempt to twist the meaning of the terminology so as to obtain a 1981 filing data for 1987 terminology (i.e. as applicant attempts to obtain a 1981 filing data for his 1987 definitions). Thus, it is the record before the examiner which renders much of the currently recited terminology unclear and unsupported.

## **SECTION X: (An Objection and Section 112-1 Rejections).**

26. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP 608.01 (o).

Correction of the following is required:

A) Line 2 of claim 56 recites “an interactive video apparatus” which has not antecedent basis in applicant’s disclosure as originally filed. In appendix A of applicant’s last response, applicant indicates that the terminology in question refers to the originally disclosed “signal processing apparatus” of figure 7 thereby indicating, apparently, that the required antecedent basis for the subsequently introduced “interactive video apparatus” recitation was somehow provided by the apparatus of figure 7c. Applicant’s position is not understood. For example:

- 1) How has applicant defined the subsequently introduced “interactive video apparatus” terminology so as to be consistent in scope and meaning with that which was originally disclosed in applicant’s originally filed disclosure (?);
- 2) How has the subsequently introduced “an interactive video apparatus” terminology been defined by applicant so as to be of the same meaning/scope as the “signal processing apparatus” terminology which was used by applicant’s originally filed disclosure in order to refer to and identify the same originally disclosed structure/apparatus of figure 7c (?);
- 3) How and in what way does the “signal processing apparatus” of



applicant's figure 7c constitute "an interactive video apparatus" (?);

4) How would one of ordinary skill in the art have "immediately discerned" the disclosed "signal processing apparatus" of figure 7c as having comprised the "interactive video apparatus" that is now being claimed in claim 56 (?).

27. Claims 56-182 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is maintained that all of the currently pending amended claims contain limitations which were not described in the present 1987 disclosure in an "immediately discernible" fashion as is required by section 112-1 for the reasons which were addressed in "SECTION III" of this Office action. In addition to those problems which were previously addressed above, the following examples of section 112-1 problems are hereby cited:

EXAMPLE #1: In the TV art (as in the motion picture art), it was notoriously well known to have used true "superimposure", rather than "keying", as the method by which video images, representing graphics/text symbols, were overlaid on top of another "background" video image. Since such true "superimposure" is

an additive mixing process it is necessary, when using superimposure, for the graphics/text overlay to be generated on a black background because black is "transparent" within additive signal mixing processes <sup>72</sup>. In contrast, because "keyed" mixers operate on a non-additive basis, it is completely unnecessary for the graphics/text overlay to be generated on a black background because, in "keying", the background portion of the overlay is simply replaced (i.e. "keyed out") by the background image; e.g. such being evident in the conventional use of the "non-transparent" blue background color in non-additive chroma-key signal mixing systems. In light of the above, the following is hereby noted:

A) In describing the way in which applicant's own locally generated graphic images were overlaid over the received "graphic" images, applicant's original 1987 written description explicitly indicated the need to generate the graphic overlay:

*"on a background color that is transparent when overlaid on a separate image...[b]lack is such a background color"* [see lines 9-14 on page 25 of applicant's instant 1987 written description].

This description clearly indicates/suggests that the two graphic video signals/images that were combined/mixed by applicant's alleged invention were combined/mixed using an additive mixing process, e.g. using true

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<sup>72</sup> When "adding" two image signals, all pixel values from a first of the image signals, i.e.  $VALUE(X,Y)$ , that are added to a black background pixel value from the second image signal, i.e. having a "zero" value, will result in respective combined overlaid output pixel value that is equal to the pixel value of the first image signal; e.g.  $VALUE(X,Y) + 0 = VALUE(X,Y)$ . This is why a black background level is considered "transparent" when used within in an additive signal mixing processes.

“superimposure” as opposed to a non-additive “keying” process . Again, non-additive mixing processes, such as “keying”, do not require the “black transparent background color” that was explicitly described by applicant as being needed with respect to applicant’s own alleged invention (i.e. whereas true “superimposure” did). Hence, the teachings of applicant’s 1987 disclosure clearly indicate:

- 1) that the video signals representing the images of applicant’s figures 1A and 1B were in fact added together in their entirety (i.e. “superimposed”); and
- 2) that the content of the figure 1B image could be seen through the content of the figure 1A image, e.g. within the combined figure 1C image, because the black background content of the figure 1A image was “transparent” when added to the content of the figure 1B image [see lines 9-14 on page 25 of applicant’s instant written description].

B) However, applicant now attempts to present amended claims which that include recitations which set forth, and are limited to, a non-additive “keying” process for combining the two “graphics” signals of applicant’s alleged invention; i.e. limitations which require that the video signals representing the two images (i.e. figures 1A and 1B of applicant’s 1987 disclosure) be combined non-additively (i.e. “in less than their entirety”) so as to produce the combined output image ( i.e. figure 1C of applicant’s

1987 disclosure). Applicant's originally filed 1987 disclosure clearly taught otherwise [see part "A)" above]. Thus, not only is there no section 112-1 support in applicant's originally filed disclosure for the newly introduced "keying step" recitations themselves, but the original teachings that exist within applicant's originally filed instant disclosure actually lead one away from the newly recited "keying" processes by indicating/suggesting that true "superposition" was the signal combining method that was used within applicant's alleged inventions as originally described <sup>73</sup>.

For example:

1. Lines 19-21 of claim 179 recite a step in which "only a portion of a second completed full-screen video graphic image" is passed to the display monitor. This recitation is clearly limited to some type of nonadditive "keying" process. However, no "keying" process was ever described within applicant's originally filed disclosure; e.g. at least that portion that has now been explicitly cited by applicant to show alleged section 112-1 support for this added limitation (see appendix A of applicant's last response). To the contrary, true "superimposure" (not "keying") was the signal mixing method that was at least implicitly taught/described within applicant's 1987 disclosure as originally filed and, in such true "superimposition", the

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<sup>73</sup> The right to be his own lexicographer does not give applicant the right to positively recite steps which were not originally described, much less to positively recited steps which pertain to signal combining methods that are different from that signal combining method which actually appears to have been described in applicant's originally filed instant disclosure; i.e. there is no way for applicant to allege that the recited steps were inherently described because the recited steps pertain to a method of signal combining which was not described/disclosed by applicant (one cannot claim that which he did not originally describe).

entire image would be passed to the monitor (not “only a portion”);

2. Lines 22-26 of claim 179 recite a step in which only “said passed only a portion of said second completed full-screen graphics image and only a portion of said first completed full screen video graphic image” is displayed by the monitor. This recitation is clearly limited to some type of non-additive “keying” process. However, such a recited “keying” process was not described by applicant’s originally filed disclosure; e.g. at least that portion of applicant’s originally filed disclosure that is currently being cited by applicant to show alleged section 112-1 for these added/amended claim limitations (see appendix A of applicant’s last response). As best understood by the examiner, “superimposure” (not “keying”) was the signal mixing method that was used/implied within applicant’s 1987 disclosure as originally filed.

C) Claims 67-74, 89, 90, 93-109, and 167-182 all include added/amended “keying” limitations which are not supported by applicant’s specification as originally filed for the reasons similar to those which were explained for claim 179 above.

**EXAMPLE#2:** In the television art, “interactive video” and “interactive

television” referred to systems which enabled a two-way dialogue/interaction exchange between the system and the user/subscriber; i.e. systems in which the user inputs a response or a request to the system and, in response thereto, received a response or request from the system. In contrast, as originally disclosed, applicant’s alleged invention were specifically configured so as not to be “interactive”. Specifically, as originally described, the objective of applicant’s alleged inventions were to provide system which would automatically “personalize” received TV programming/shows, by automatically adding a locally generated video and/or audio content to the received TV programming/shows, without viewer/user interaction; e.g. the user simply turns on his TV

to watch the show “WALL STREET WEEK” and, during the course of the show, his receiver is automatically triggered by the programming to synchronously generate and superimpose locally generated user specific image data over the displayed TV programming. Being such, applicant’s alleged inventions (as originally disclosed) clearly fall outside the normal/conventional definition of “interactive video” and “interactive television”; e.g. in fact, applicant’s originally filed disclosure explicitly taught away from a system which was “interactive”.

*[SEE: lines 27-34 on page 11 of applicant’s instant disclosure as originally filed; lines 18-20 on page 91 of applicant’s instant disclosure as originally filed; lines 13-34 on page 427 of applicant’s instant disclosure as originally filed; etc,...].*

Applicant’s pending amended claim 56 now explicitly recites “an interactive

video apparatus". The examiner maintains that the use/introduction of this terminology in the context of the pending amended claim was not supported by the disclosure as originally filed for the reasons addressed above.

In appendix A of applicant's last response, pages 1-7 of 231, applicant alleges that the required section 112-1 support of the added "interactive video apparatus" terminology comes from the receiver structures of figure 7c and/or of figure 1. However, for reasons given above, the examiner maintains that the receiver structures of figures 7c and figure 1 did not, and still do not, constitute "interactive video apparatus" in any conventional sense of the terminology; i.e. the introduction of "interactive video apparatus" in the context of claim 56 constitutes the introduction of "NEW MATTER".

Here, it is interesting to note that the rest of claims 56 also introduces more conventional terminology typically associated with conventional interactive Television/Video systems; i.e. the "first request", the "second request", etc ... However, when one looks closely at the alleged section 112-1 support for this added terminology (see pages 1-7 of 231 in appendix A of applicant's last response), one finds said terminology is actually referring exchanges that occurs between the microcomputer of the subscriber's receiver and remote data sources; i.e. not exchanges that are occurring between the subscriber and the receiver structures. Even if these cited system exchanges were now to be considered "interactive exchanges" of one sort or another, it is the "remote data source(s)" of applicant disclosed invention(s) which is/are "interactive" at best; i.e. it is not the receiver circuitry of figures 1 and 7c that is "interactive" as has now been alleged

and claimed.

For the reasons given the above, the examiner maintains that applicant's originally filed instant 1987 disclosure did not describe an "interactive video apparatus" of the type that is now (by applicant's own allegations/admissions) being positively recited in the context of claim 56.

**EXAMPLE #3:** Lines 13-33 on page 449 of applicant's originally filed disclosure described two methods by which stock share prices for the stocks contained within a user's/subscriber's portfolio may be updated, automatically, on a daily basis. In the first method, a "remote stock-price-data-transmission station" transmits the data at a predetermined time each day and, in some unspecified manner, causes apparatus at each subscriber station to select and record the share prices which pertain to the portfolio of the respective user. In the second method, at the predetermined time each day, the apparatus in each subscriber's terminal is caused, e.g. by a transmitted "SPAM" message, to automatically contact a remote data computer via a telephone. Once contacted, the remote data computer is cause to provide the closing price datum for each of the stocks contained within the respective subscriber's portfolio. In appendix A of applicant's last response (pages 1-3 of 231), applicant indicates that an unspecified one of these two originally described methods of updating stock share prices provided the required section 112-1 support for the newly introduced recitations found in claim 56 pertaining to the communication of one of at least two requests:



“communicating one of at least said first request and a second request to a remote data source”

[see lines 8 and 9 of claim 56].

The examiner maintains that the originally filed disclosure did not provide section 112-1 support for these subsequently added limitations for the following reasons:

1) The first originally described first method clearly fails to provide section 112-1 support for added recitations because the first method communicates nothing (i.e. no “requests”) to the remote data source; and

2) The second originally described method fails to provide section 112-1 support for the added recitation because:

a) nothing that was originally described with respect to said second method would have been “immediately discerned” by one of ordinary skill in the art as having comprised the “first request” and the “second request” that is now being recited within amended claim 56....especially when read in the context that this “request” terminology appears within claim 56-- (exactly what actions/signals/inputs from the disclosed second method would one of ordinary skill in the art have be “immediately discerned” as having comprised a “first request” and a “second request” being originated from an “interactive video apparatus” as is now positively recited within claims 56?); and

b) the originally described second method provides absolutely no section 112-1 support for the phrase “one of at least” in the

recitation “communicating one of at least said first request and a second request to a remote data source” (e.g. with respect to the originally described second method, it appears that anything/everything that is generated for communication to the remote data source is in fact communicated to the remote data source; i.e. it appears that “one of at least” should/must read --both of at least--, in any event).

**EXAMPLE#4:** On page 5 of 231 in appendix A of applicant’s last response, applicant suggests that section 112-1 support for the “first request” in the recitation:

“originating at said interactive video apparatus at least a first request in order to enable content to be displayed in said video presentation”

of claim 56 might be provided if one were to have provided if one had provided the originally described decryption keys of page 450 to the subscriber terminals using a method described on page 312 so that video might be descyphered in a manner that was originally described on pages 288 and 289 (i.e. applicant needs to string together three different teachings from three vastly scattered portions of very long and a difficult disclosure in order to now try to create the section 112-1 support for just one of the many limitations (i.e. 23 words) of pending amended claim 56. Clearly, this added limitation would not have been “immediately discerned” by one of ordinary skill in the art from applicant’s originally filed disclosure; i.e. the claim does not pass section 112-1 muster for this reason alone.

**EXAMPLE #5:** As evidenced by “The IEEE Standard Dictionary of Electrical and Electronics Terms”, the term “interactive” refers to:

*“a system or mode of operation in which each user entry causes a response from or action by the system”.*

Given this definition, it is clear that the recitation of the term “interactive video apparatus” in claim 56 is not supported simply by the “automatic updating of a local data base via an automatically established telephone connection” as is now alleged by applicant [note page 1 and 2 of appendix A of applicant’s response].

Given the above, the addition of the term “interactive” to amended claim 56 appears to be an attempt to capture/claim subject matter which was not described in the disclosure as originally filed; i.e. applicant did not disclose an “interactive video apparatus” ( i.e. at least in the context that such terminology now appears to be used within applicant’s amended claim).

**EXAMPLE #6:** As evidenced by “The IEEE Standard Dictionary of Electrical and Electronics Terms”, the term “download” refers to:

*“the transfer of some collection of data from a memory of a computer to another memory.”*

Given this definition, *the examiner maintains that it is clear that the recitation of the term “downloadable” in claim 75 is simply not supported by*

*the 1981 disclosure as originally filed*; i.e. the “transmission of instruction signals” and/or the “analyzing of an identifier signal” simply does not constitute the downloading of downloadable instructions given the conventional meaning of the “downloadable” terminology [note page 24 of the appendix A of applicant’s response]. The following is noted:

a) applicant’s originally described “instruction signals” and “identifiers” did not constitute *collections of data* within the conventional meaning/context of the term “downloadable”; and

b) applicant’s originally described “instruction signals” and “identifiers” did not constitute *collections of data* which were transferred from a memory of one computer to another memory within the conventional meaning/context of the term “downloadable”.

While not supported by applicant’s originally filed 1981 disclosure, support for the “downloadable instruction” terminology of claim 75 might be found in the “program instruction set” that is set forth in line 15 on page 24 of the 1987 disclosure *if it can be shown* that this “program instruction set” was actually provided as part of the “second series of instructions” set forth in the last line on page 23 of the 1987 specification. Similar clarification is needed in claims 152 and 167.

EXAMPLE #7: Lines 3-5 of claim 75 recite that each receiver station is:

"programmed to process downloadable processor instructions". On page 24 of 231 in appendix A of applicant's last response, applicant indicates that this added recitation is allegedly supported under section 112-1 by the originally filed 1987 disclosure because the original disclosure indicated that microprocessor (205) of the receivers were preprogrammed to respond to instruction signals which were embedded within received TV programming. The examiner maintains that the original 1987 disclosure, *at least the portion now cited by applicant*, did not provide support for the added recitation given the conventional meaning of the term "downloadable":

*"the transfer of some collection of data from a memory of a computer to another memory."* <sup>74</sup>

[ For the record, the examiner acknowledges that applicant's 1987 disclosure seems to describe "downloadable processor instructions" in the form of originally described "program instruction sets" (note: lines 5-21 on page 24 of applicant's originally filed disclosure). However, these originally described "program instruction sets" are often not been cited by applicant in support of the pending amended claims apparently out of fear of "*losing*" <sup>75</sup> the 1981 effective filing date

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<sup>74</sup> It is noted that the "program instruction set" that was described/defined in lines 5-21 on page 24 of applicant's originally filed disclosure does appear to represent some form of conventional "Telesoftware" and, being such, appears to be comprised of "downloadable processor instructions". However, this disclosed "program instruction set" seems to be a special form (i.e. a subset) of the "instruction" that were handled/transmitted by applicant's alleged invention(s); i.e. all "instructions" are not "downloadable processor instructions".

<sup>75</sup> However, it is the 1981 effective date has already been lost for reasons explained in "SECTION I" of this Office action.

for the pending amended claims<sup>76</sup>. This only adds confusion to an already confused record. Specifically, it appears that applicant has drafted amended claims so to explicitly capture features found only in his 1987 (e.g. "downloadable" instructions/software), yet it appears that applicant then misinterprets these amended claims with regard to the 1987 disclosure so as to try to obtain a 1981 effective filing date for the claims too; i.e. which, if accepted, improperly/illegally transports the "downloading" instruction/software feature of the 1987 disclosure back in time to the 1981 filing data of a parent application which discloses no such "downloading" feature ]

**EXAMPLE #8:** As has now been set forth on pages 23-29 of Appendix A of applicant's response, the method of claim 75 was allegedly described in the original disclosure via the disclosed transmission of the "second series of instructions"; i.e. wherein this *second series* was described as having comprised an "initial signal word or words" followed by a "program instruction set", wherein the "initial signal word or words" were further described as having caused cause the processor of a receiver station to load and run the "program instruction set". More specifically,

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<sup>76</sup> While it appears that applicant's 1987 disclosure could support "downloadable processor instruction" recitations via the originally disclosed "program instruction set", it appears that applicant shies away from citing the disclosed "program instruction sets" in support of the "downloadable processor instruction" recitations knowing that such an argument would instantly deny him the 1981 effective filing date; e.g. since the "program instruction sets" of applicant's 1987 disclosure has no equivalent within the 1981 disclosure. So instead, it appears that applicant tries to stretch the meaning of the introduced "downloadable processor instruction" recitations so as to be read on "triggering-type" instructions commands which were transmitted, albeit in different forms and ways, by both the 1981 and the 1987 alleged inventions. It is the examiner's position "triggering-type" instructions commands do not constitute "downloadable" instructions command in the conventional sense of such of the "downloadable" terminology.

as alleged in applicant's Appendix A, the disclosed "program instruction set" provided the required support for the recited "downloadable processor instructions" of claim 75, and the disclosed "initial signal word or words" provided the required support for the recited "at least one control signal". For such to be true, it becomes clear that different ones of the recited steps of claim 75 must derive their required descriptions from only one described/disclosed step; i.e. not from different disclosed steps as is actually recited in the claim. For example, the recited step of "receiving at one of said first transmitter station and a second transmitter station said downloadable code" and the recited step "receiving said at least one control signal at said one of said first and second transmitter stations" *actually* refer to the same disclosed step in which the disclosed "second series of instructions" was received; i.e. wherein applicant now takes the position that two separate recited receiving steps were actually described by the single disclosed receiving step because the received "second series of instructions" of the disclosure actually comprised two components which must have been received separately with respect to time. The examiner maintains that such alleged support for the recitations of claim 75 in the originally filed disclosure is anything but clear and concise as is required of the written description under section 112; i.e. the two steps that are now being positively recited via the pending amended claim, e.g. especially when read in the context of the other recitations of the amended claim, would not have been "immediately discerned" by one of ordinary skill in the art from applicant's originally filed disclosure at the time of filing. To the extent of the examiner's understanding, similar problems exist throughout the pending

amended claims.

**EXAMPLE #9:** Lines 11 and 12 of claim 75 positively recite a step of *receiving* “said downloadable processor instructions” at one of a first transmitter station and a second transmitter station. However, in citing alleged section 112-1 support for this recitation applicant cites a portion of the originally filed disclosure which states that the instructions are “embedded and transmitted” in the programming at the transmitter station (page 27 of 231 in appendix A of applicant’s last response). The cited portion of the original disclosure does not say that the instructions are received at the transmitter station as is now claimed. In fact, at least in the case of “first transmitter station” (i.e. supported by the “originating studio”), it appears that the instructions are originated at the station and not “received” by said station.

Could it be applicant’s position that these two recited “receiving” steps (i.e. performed respective ones of the first and second transmitter stations) are somehow inherent, implicit, and/or obvious from the cited portions of the original 1987 disclosure and, if so, why has applicant failed to indicate such as being the alleged ground of section 112-1 support within appendix A? <sup>77</sup>

Clarification is needed.

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<sup>77</sup> This issue is being raised to show that many of the citations made by applicant to the original disclosure in appendix A of his last response stop short of showing support for the limitations as they actually appear within the pending claims. For example, the cited passages themselves make no mention of “the receiving steps” in question, and appendix A conveniently lacks any explanation as to how the cited passages have been interpreted by applicant in order to allege that they provided the 112-1 support for these acts of “receiving” that are now positively recited in the pending amended claims (i.e. how can applicant possibly allege that these introduced-recited steps of receiving would have been “immediately discernible” to one of ordinary skill in the art from applicant’s instant disclosure as originally filed given the citation of passages which make no mention of the “receiving” that is in question?).



EXAMPLE #10: The examiner notes that claim 75 is full of phrases whose meanings and section 112-1 support, in the context of both the claim and originally filed disclosure, have never been never fully addressed by applicant in any of his responses. Instead, applicant appears to be of the position that he has the right to retroactively inject these kind of phrases into the claims anytime and anyplace he wishes. The examiner continues to disagree. The following is noted:

1) In line 2 of claim 75, it is unclear where the phrase "at least one", in the recitation "at at least one receiver station", finds its required section 112-1 support within applicant's instant 1987 disclosure as originally filed. Specifically, with respect to this recitation, it appears that the phrase "at least one" has now been introduced into the amended claim in order to obtain explicit claim coverage over configurations in which just one receiver station might be present/active within the network. However, applicant's originally filed disclosure does not appear to provide support for such a single station configuration. To the contrary, when one reads applicant's originally filed disclosure, one finds that applicant original disclosure explicitly taught away from the one receiver station configuration over which applicant now seeks, improperly, to obtain explicit coverage [note lines 25-31 on page 21 of applicant's originally filed disclosure]. In light of the above, the recitation in question represents "NEW MATTER". *[As will be addressed in parts "2)" and "3)" below, similar questions of "NEW MATTER" exist throughout the recitations of claim 75]*

2) It is unclear where the phrase "at least one" of the recitation "at least one control signal" in line 4 of claim 75 obtains required section 112-1 support from applicant's originally filed 1987 disclosure. Specifically, it appears that the phrase "at least one" has been added to the claim in order to obtain **explicit** coverage over situations in which just one control signal is transmitted and detected by any given receiver station. However, it is not clear where applicant's originally filed disclosure **explicitly** described a receiver which received only one control signal as would appear to be required in order to support such in being now **explicitly** claimed via amended claims. Clarification is needed.

3) Similar clarifications are needed for: a) the phrase "at least one" in the recitation "at least one datum" in line 8 of claim 75; b) the phrase "at least one" in the recitation "at least one of completes and supplements" in line 8 of claim 75 (i.e. where has applicant disclosed datum which only completes or only supplements the presentation as would be required if section 112-1 support were provided for this recitation); c) the phrase "at one of" in the recitation "at one of a first transmitter and a second transmitter" in line 11 of claim 75; d) the phrase "at least one" in the recitation "at least one receiver station" in line 13 of claim 75; e) the phrase "having at at least one" of the recitation "having at at least one receiver station" in lines 14 and 15 of claim 75; f) the phrase "of at least one" in the recitation "causing the execution of at least one of said downloadable processor instructions"

in lines 19 and 20 of claim 75. <sup>78</sup>

Similar “NEW MATTER” issues exist throughout the pending amended claims:  
e.g. whenever/wherever ranges such as “one of”, “at least one of”, etc... have now  
been introduced/injected into the original disclosure via the pending amended  
claims. <sup>79</sup>

**EXAMPLE #11:** Line 3 of claim 75 recites a “signal detector”. In appendix A  
of applicant’s last response (page 23 of 231) applicant identifies decoder (203) of  
his original disclosure as having provided the required section 112-1 support for  
this recitation (citing lines 14-16 on page 21 of his originally filed disclosure in  
support of his position). However, when one reads these lines in the context in  
which they were originally written (i.e. when one reads lines 14-20 on page 21 in  
full), one finds that applicant’s decoder (203) was originally described:

- 1) as having detected “**digital information**” on a particular line in the VBI  
the receives video transmission;
- 2) as having corrected error in the detected “**digital information**”; and
- 3) as having converted the corrected “**digital information**” into a “**digital**

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<sup>78</sup> All these “phrases” give applicant explicit coverage over an explicitly recited range of configurations starting, in most cases, with just “at least” one. The examiner is not saying that applicant is not entitled to a generic claim which generically covers the entire recited range, but the examiner is questioning whether applicant has the right to go back and now explicitly introduce/recite a range of configurations (i.e. “at least one”) when said range had not been explicitly set forth by the disclosure when originally filed (e.g. “delivering a presentation at a receiver station” covers a situation in which there are one or more receiver stations but does not explicitly require disclosure of such a range of configuration, whereas “delivering a presentation to at least one receiver station” seems, to the examiner, require there be disclosure of configurations that include just one receiver station and, alternatively, disclosure of configuration pertaining to more than one receiver station).

<sup>79</sup> Applicant’s injection of this kind of terminology into the disclosure has been questioned/challenged by examiners of record, under both section 112-1 and section 112-2, throughout the prosecution history of applicant’s many co-pending applications.

signal" for output to a microcomputer.

Given the above, from the originally filed disclosure, it appears that decoder (203) actually comprises an "digital information detector" (i.e. which, as originally disclosed, appears to be little more than the acquisition circuitry found in conventional teletext decoders<sup>80</sup>). Specifically, decoder 203 appears to comprise an "*information detector*" and not a "*signal detector*" as now being recited in pending claim. More specifically, as originally disclosed, the decoder (203) of applicant's claimed invention(s) was described as having detected "*information*" which it processed and converted into "*signals*". Thus, the injection of the "*signal detector*" recitation into the claim constitutes the introduction of "NEW MATTER".

For the record, the examiner notes that the inconsistent use of nomenclature between the pending amended claims and the originally filed disclosure (e.g. inconsistent use of terminology such as "signals", "information", "data", "datum", "commands", "instructions", etc, ...) <sup>81</sup> makes the task of trying to "discern" section 112-1 support for the recitation of the pending amended claims from the originally filed disclosure an ever more difficult; i.e. the support for the recitations of the amended claims falls below the "immediately discernible" standard, imposed by section 112-1, on this basis alone. Likewise, said inconsistent use of

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<sup>80</sup> As in the case of conventional teletext acquisition circuitry, applicant's decoder operated to detect, extract, and error correct digital information that had been embedded in the VBI of received TV programming signals; i.e. hence, the "signal detector" recitation does nothing to overcome the applied teletext "prior art".

<sup>81</sup> NOTE: paragraph 19 of this Office action.

nomenclature degrades the meaning of such terminology when read in light of the record (i.e. their meanings become hazy and merge)<sup>82</sup>.

Similar problems/situations exist throughout the pending amended claims [note: that the alleged section 112-1 support for the "at least one control signal" recitation of line 3 of claim 75 allegedly comes from the description of "a series of control instructions" described in the originally filed disclosure (see page 24 of 231); that the alleged section 112-1 support for the "downloadable processor instructions" of line 5 of claim 75 allegedly comes from the description of "instruction signals embedded in the 'WALL STREET WEEK' programming transmission" described in the originally filed disclosure (see page 24 of 231); etc,...].

**EXAMPLE #12:** Claim 75, lines 8 states that the second image contain datum that "*one of* completes and supplements the first video image". This does not appear to be supported by the originally filed disclosure for the reasons given by applicant on page 25 of 231 in appendix A of applicant's last response. The following is noted:

1) According to applicant's own allegations, the recited second image functioned to "supplement" the first video image but did function to

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<sup>82</sup> For example, during prosecution, applicant has drafted claims which recite steps of converting "information into signals". However, if "information" actually comprises "signals" (as applicant's cited support for the "signal detector" recitation now seems to suggest) then the recited step of converting "information into signals" becomes nothing more than a recitation of converting "signals into signals"; i.e. such recitations are just more "straw men" which function only to clutter the record and effectively hide the real issues which need to be addressed.

"complete" the first video image; i.e. namely, as now alleged by applicant <sup>83</sup>, the second image functioned to "complete" the video programming and did not "complete" the first image as is recited in the pending amended claim.

2) Alternatively, if applicant were to allege that "the first video image" is synonymous with "the video programming", then the recitation of claim 75 is still wrong/unsupported because, in this alternative case, the second image actually contains datum that --*both* completes and supplements" the first video image (i.e. once again exemplifying the problems which can arise under section 112-1 when one chooses to arbitrarily inject phrases such as "one of" into the recitations of pending amended claims).

**EXAMPLE #13:** On pages 26 of 231, 27 of 231, and 28 of 231 in appendix A of applicant's last response, applicant cites the following paragraph that is found within the instant disclosure as originally filed:

"Subsequently, a second series of instructions is embedded and transmitted at said program originating studio. Said second series is detected and converted into usable digital signals by decoder, 203, and inputted to microcomputer, 205, in the same fashion as the first series. Microcomputer, 205, evaluates the initial signal word or words which instruct it to load at RAM (from the input buffer to which decoder, 203, inputs) and run the information of a particular set of instructions that follows said word or words just as the information of a particular FILE.EXE, recorded on the contained floppy disk, would be loaded at RAM (from the input buffer to which the disk drive of said disk inputs) and run were the command

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<sup>83</sup> See 1981 "references" column on page 25 of 231 in appendix A of applicant's last response.

"FILE" entered from the console keyboard to the system level of the installed operating system. (Hereinafter, such a set of instructions that is loaded and run is called a "program instruction set.")

*[page 23 line 35 through page 24 line 16]*

Applicant alleges that this one paragraph provided all of the section 112-1 support that is required so as to allow applicant to subsequently draft and enter the following sequence of recitations into the record via subsequently filed amended claims:

- 1) The step of "receiving" downloadable processor instructions at said first transmitter station; and*
- 2) The step of "transferring" the downloadable processor instructions to a transmitter;*
- 3) The step of "receiving" said at least one control signal at said one of said first and second transmitter stations"; and*
- 4) The step of "transferring" said at least one control signal to said transmitter" and*
- 5) The step of "transmitting" an information transmission comprising said downloadable processor instructions and said at least one control signal; and*
- 6) The recitation that said downloadable processor instructions had, at at least one receiver station, a target processor to process data.*

The examiner disagrees. Specifically, contrary to applicant's assertion, the examiner maintains that one skilled in the art would not have "immediately

discerned” that which is claimed via these subsequently introduced recitations of the amended claims (e.g. Such as all six of the recitations listed above), from the portion of the originally filed disclosure that is now recited by applicant in support thereof (i.e. from the one paragraph which has been reproduced above). The recitations of the claims represents the impermissible introduction/injection of “NEW MATTER” [For example: Where does this cited paragraph state that said “at least one control signal” was received “at one of said first and second transmitter stations”?; For that matter, where does the cited paragraph even mention the recited “second transmitter station” at which “said at least one control signal” might be received?; etc...].

**EXAMPLE #14:** The examiner notes that lines 3 and 4 of claim 76 recite a step for “receiving at least a portion of the first video image at one of said first and said second transmitter station”. It is not clear where the recitation “at least a portion” finds support in the originally filed instant disclosure (i.e. in the originally filed instant disclosure, it appears that every portion of first video image that was produced was transmitted). It is also not clear where the recited step of “receiving at least said portion” was originally disclosed in accordance with section 112-1:

1) Is applicant now suggesting that the positively recited “receiving” step that has now been introduced via amended claim was somehow inherent, implicit, or obvious via the statement: “and the studio generated graphics is transmitted”? (e.g. note that one on pages 29 of 231 and 30 of 231 in appendix A of his last response, applicant appears to suggest that the



statement "and the studio generated graphics is transmitted" provides the alleged section 112-1 support for both the "receiving" step and "transmitting" step of claim 76 even though only a "transmitting" step appears to be alluded to by the cited statement )...

2) Specifically, is applicant suggesting that anything that is transmitted from his transmitter station must have been received (e.g. inherently, implicitly, and/or obviously) at the transmitter station first?....

3) If so, then does this not apply to anything that is transmitted from the transmitting stations of the applied "prior art" of record too? ....

4) And if it does not apply to the applied prior art of record too, then why in the world not?....

**EXAMPLE #15:** The examiner notes that the "downloadable processor instructions" (i.e. the Telesoftware), that was described in lines 5-21 on page 24 of applicant's originally filed disclosure, was described as having programmed a processor at the receiver stations with the intelligence that was needed in order to have generated each video image (e.g. each "second video image") that was to be outputted by each receiver station [see lines 22-35 on page 24 and lines 1-32 on page 25]. However, this "downloadable processor instruction" was not described as having programmed the processor of the receiver stations with the intelligence that was needed to output the generated video images [note lines 32-35 on page 25 and lines 1-28 on page 26 of the disclosure]; i.e. the act of outputting the generated images was performed by the processors recognition of a subsequently

transmitted “GRAPHIC ON” command provided from the transmitter. Being such, the recitation, “...downloadable processor instructions programs said processor (I) to output video one of simultaneously and sequentially with said video presentation...”, in claim 78, represents the introduction/injection of “NEW MATTER”.

Within this recitation, it is also not clear where the “one of simultaneously and sequentially” recitation is supported by the instant 1987 disclosure given the showing on page 31 of 231 in appendix A of applicant’s last response. For example, if applicant is suggesting that figure 1A is displayed prior to the overlaying of figure 1B, e.g. thereby forming figure 1C, then the examiner maintains that the recitation should read “both simultaneously and sequential”; i.e. where did applicant ever describe a process in which the images of a presentation were displayed “**one of**” simultaneously and sequentially? [another example in which the phrase “one of” seems to have been arbitrarily injected/introduced into the amended claims in apparent violation of section 112-1].

**EXAMPLE #16:** The examiner notes that the “downloadable processor instructions” (i.e. the Telesoftware), that was described in lines 5-21 on page 24 of applicant’s originally filed disclosure, were described as having programmed a processor at the receiver stations with the intelligence that was needed in order to have generated each video image (e.g. each “second video image”) that was to be outputted and overlaid at each receiver station [see lines 22-35 on page 24 and lines 1-32 on page 25]. However, this “downloadable processor instruction” was

not described as having programmed the processor of the receiver stations with the intelligence that was needed to have performed any of the three operations that are now recited in claim 78. The downloadable processor instruction did not program the processors:

1) to output the generated images (this was performed by a received "GRAPHICS ON" instruction);

3) to process a subscriber's reaction to the presented images (this was performed by the "preprogrammed" processor and received control signals);

2) to select information that supplements the video presentation as is now explicitly set forth by the limitations of amended claim 78 (the "downloadable processor instructions" themselves constitute that which is being "selected").<sup>84</sup>

**EXAMPLE #17:** In claim 80, lines 1 and 2, the explicitly recited range "at least one" of the recitation "delivering a video presentation to at least one receiver station" is not supported the instant disclosure as originally filed for reasons already addressed above; i.e. the originally disclosed configurations were described as having delivered the presentations to a plurality of receiver stations [note: lines 23-27 on page 11 of applicant's originally filed disclosure; lines 15-22 on page 25 of applicant's originally filed disclosure; etc,...]. Again, the examiner does not

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<sup>84</sup> The disclosed "first set of instructions" only cause microcomputer, 205, to execute prestored computer programming [see: lines 13-15 and lines 24-26 on page 23]. Thus, the disclosed "first set of instructions" clearly does not comprise "program instruction sets" (e.g. Telesoftware) as did the "second series of instructions" [see lines 27-35 of page 23 and lines 1-21 of page 24].

dispute the fact that applicant's disclosure permits applicant, under section 112-1, to claim a method for "delivering a presentation to a receiver station" because this recitation is broad and does not explicitly set forth a range in the number of receiver stations that is used. However, the recitation "delivering a presentation to **at least one** receiver station" explicitly set forth a range in the number of stations that are used wherein said explicitly stated range starts with just "one receiver station". And there is no support in the original disclosure for a configuration which delivers a presentation to just one station; i.e. if a range must be explicitly claimed, for proper section 112-1 support is to be provided from the originally filed disclosure, then the range should be "delivering a presentation to **at least a plurality** of receiver stations" for this is the only range that was originally described (obviousness variations of that which is disclosed cannot provide section 112-1 support for recitations found within amended claims).

**EXAMPLE #18:** Line 3 of claim 75 recites a "signal detector". This recitation is not supported by applicant's originally filed disclosure for reason already explained above with respect to the same recitation in line 3 of claim 75. Similar clarification is needed throughout the claims (e.g. such as claim 84)

**EXAMPLE #19:** For the receiver stations of applicant's alleged invention to have operated properly, they must have been "adapted" so as to have detected the presence of many signals. Being such, there appears to be not section 112-1

support for the injection of “at least one” in the recitation “at least one signal” in line 4 of claim 80. Again, the “at least one” terminology explicitly covers a range of implementations for which there was no support in the instant disclosure as originally filed.

**EXAMPLE #20:** Line 5 of claim 80 recites a step of: “receiving, at an origination transmitter station, video to be transmitted...”. Line 7 recites a step of: “delivering a signal containing said video to an origination transmitter”. On pages 34 of 231 and 35 of 231 in appendix A of applicant’s last response, applicant alleges that the following teaching from his originally filed disclosure provided the required section 112-1 support for both this recitation:

*“said program originating studio commences transmitting the programming information of said ‘Wall Street Week’ program,...”.*

The examiner notes that the cited passage, at best, only describes a step of “transmitting”. The cited passage certainly did not describe: the recited step of “receiving” that is now being claimed; the recited step of “transferring” that is now being claimed; or the now recited “origination transmitter” that is now being claimed. Even if these newly recited steps and structures were to be deemed obvious from the cited passage, they could not be claimed because obviousness cannot serve as grounds for support under section 112-1. Additionally, the examiner points out that, based on applicant’s own allegations, the currently recited “program origination transmitting station” corresponds to the “program

originating station", of the instant disclosure as originally filed, at which the "Wall Street Week" program was originally described as having been **originated and transmitted** (i.e. not as having been "received" and "transferred" to an "origination transmitter" as is now claimed).<sup>85</sup> [NOTE: lines 29-31 on page 20 and lines 26-27 on page 429 of applicant's originally filed disclosure].

For the reasons given above, the examiner maintains that the recited "receiving" and "transferring" steps, along with the recited "transmitter" structure, would not have been "immediately discerned" by one of ordinary skill in the art from applicant's instant disclosure as originally filed; i.e. these recited steps/structure were at best embedded/hidden within the passage of applicant's originally filed disclosure which applicant cites in support of the recitations: "*said program originating studio commences transmitting the programming information of said 'Wall Street Week' program,...*". Being such, the recited steps/structure represents the impermissible injection/introduction of NEW MATTER into the disclosure as originally filed (the method that is now being claimed, i.e. the recited method that now attempts to incorporate such unsupported steps/structure, was not described within applicant's originally filed disclosure clearly enough and concisely enough so as to have established with relative certainty that applicant understood and possessed the steps of the "method" that is now being claimed explicitly).

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<sup>85</sup> It seems that applicant is now alleging that the recited steps of "receiving" and "transferring", and the recited "transmitter", represent nothing more than actions and structure that occur within any TV studio. If so, then the examiner maintains that the applicant's attempt to now inject introduce such unsupported steps/structure into the pending amended claims represents little more than an attempt to create more "straw men" because, even if applicant's allegations were true, such steps and structure would have to have been implicit acts/structure studios found within the applied prior art too.

EXAMPLE #21: Lines 7-11 of claim 80 recite a "instruct signal" which is operative to cause a receiver station to:

"at least one of generate and output a local portion of a video presentation and cause said locally generated portion of said video presentation to be displayed in conjunction with said video".

However, when one looks at the alleged section 112-1 support for this recitation as alleged by applicant on page 35 of 231 in appendix A of applicant's last response, one finds that the recited "instruct signal" allegedly corresponds to a transmitted "GRAPHICS ON" instruct signal, wherein this "GRAPHICS ON" instruct signal was only operative to cause the receiver station to:

"output the locally generated portion of the video presentation so that it would be displayed in conjunction with (i.e. overlaid onto) said video".

Being such:

1) the passage cited by applicant for section 112-1 support does not support the "generate" recitation [i.e. the local portion of the presentation was generated by the local Microcomputer prior to receipt of said "GRAPHICS ON" instruct signal]; and

2) The passage cited by applicant for section 112-1 support does not support the injection/introduction of the phrase "at least one of" into the claim [i.e. as disclosed, the recited instruct signal did not do "at least one" of that which is recited, it did all of that which is recited (except "generate"))] The "at least one" phrase simply constitutes the

injection/introduction of a specific range of system configurations/implementations that was not described in the instant disclosure as originally filed].

**EXAMPLE #22:** Line 12 of claim 80 now recites:

*“receiving, at said origination transmitter station, at least one control signal”.*

At the bottom of page 25 of 231 in appendix A of applicant’s last response, applicant indicates that this recitation is supported under section when one combines the teaching from page 13 of from the originally filed instant disclosure that:

*“The present invention employs signals embedded in programming”,*  
with the teaching from page 430 of the originally filed instant disclosure that:

*“Before transmitting any given program unit of television programming, any given program originating studio transmits a particular intermediate-station-control message...”*

Even if one were to have recognized that these two teachings, now cited/excerpt from two completely different portions of the instant disclosure, could be combined as applicant now suggests, one skilled in the art would not have “immediately discerned” that which is now being claimed. For example, where is



**EXAMPLE #23:** On pages 35 of 231 and 36 of 231 in appendix A of applicant's last response, applicant suggests that the following recitation from claim 80:

*"receiving, at said origination transmitter station, at least one control signal that, at the remote intermediate transmitter station, controls the communication of at least one of said video and said instruct signal",*

was supported under section 112-1 by combination of 7 cited excerpts which have now been extracted by applicant from pages 13, 430, 325, 328, 431, 430, and 25 of his originally filed disclosure. Even with these extracted excerpts sitting in front of him today, the examiner does not get it: e.g.

- 1) Where was this recited "step of receiving" a "control signal", that controlled the communication of the recited **video**, described in the originally filed instant disclosure in the "immediately discernible" fashion that is required by section 112-1 ?;
- 2) Where was this recited "step of receiving" a "control signal", that controlled the communication of the recited **instruct signal**, described in

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<sup>86</sup> The examiner maintains that it is improper for applicant to suggest that the transmitting stations of the applied prior art do not implicitly "receive" the signals that they transmit, when applicant appears to allege that this is the implicit basis for the required section 112 support of the "receiving" limitations now found introduced within applicant's own amended claims. Similarly, if applicant alleges that each of his originating studio stations must have implicitly comprised a respective "originating transmitter", as is now claimed in applicant's amended claims, then it would be improper for applicant to suggest that such "transmitter" structure was not implicitly part of the originating studio stations of the applied prior art too. Hence, applicant's to improper introduction of such non-supported recitation into the pending amended claims, e.g. however obvious such introduced limitations might have been from the originally filed instant disclosure, only constitutes (in effect) the improper creation of more "straw men" [even if the introduction of the non-supported limitations were improperly permitted, for the reasons given above, they would contribute nothing of substance to the issue of patentability over the applied prior art of record and, instead, would only serve to improperly clutter cloud the record].

the originally filed instant disclosure in the “immediately discernible” fashion that is required by section 112-1 ?; and

3) Where is the support for the phrase “at least one” in the recitation “at least one of said video and instruct signal”?

**EXAMPLE #24:** On pages 38 and 39 of 231 in appendix A of applicant’s last response, it is unclear from the cited passage, where the original 1987 disclosure described the following recitations of claim 81 in an immediately discernible fashion:

- 1) the support for the phrase “at least one” in the recitation “at least one control signal”[i.e. a disclosed embodiment which only required one control signal];
- 2) the recited “information” of said the “at least one control signal”;
- 3) the recited “information transmission”
- 4) the recited “video”;
- 5) the recited “portion” of said information transmission, that is identified by the information of the control signal, which contains the recited “video”;
- 6) the recited “second control signal” that, apparently, is different from the previously recited “at least one” control signals which were previously recited [i.e. if it not different, then the recitation “at least one” should read --at least two--];

7) the recited “second portion” of said previously recited “information transmission” and

8) the recited “communication” of said second portion of said information transmission that is controlled by said second control signal.

**EXAMPLE #25:** In claim 84, as with claim 80 above, there appears to be no support in the originally filed disclosure for a system which operated to control just one receiver station and therefor the appears to be not support for the phrase “at least one” in the recitation “at least one receiver station”.. As originally disclosed, the were in fact “at least a plurality of receiver stations” which were configured and controlled as described [again, the examiner is objecting to the attempt to introduce recitations which **explicitly** recite a range of configurations that was not described in the originally filed disclosure (as opposed to simply drafting the claim broadly so as to broadly encompass the range)].

**EXAMPLE #26:** On page 41 of 231 in appendix A of applicant’s last response, it is not understood how the originally described detection of embedded **instruction information** by the originally described decoder 203 (e.g. the detection of **information**) provides the alleged original support, in the required “immediately discernible” fashion, for recitations of a system that has been “adapted” to detect the presence “at least one signal” as in now recited in claim 84. Further, by taking this position, it seems that applicant effectively blurs the line between his originally described “information” and his originally described

“signals”; e.g. which creates additional confusion whenever/wherever applicant recites steps for converting information-to-signals or for converting signals-to-information.

**EXAMPLE #27:** On page 41 of 231 in appendix A of applicant’s last response, it is not clear where applicants instant disclosure described, in an immediately discernible fashion, the recited “at least one receiver station” which actually provided the recited “at least one processor instruction” wherein:

- 1) said recited “at least one processor instruction” that was provide by the receiver station comprised an “information content”; and
- 2) said “information content” of the “at least one processor instruction” that was provide by the receiver station was “of separate ones of a plurality of discrete signals”.

**EXAMPLE #28:** On page 41 of 231 in appendix A of applicant’s last response, it is not clear where applicants instant disclosure described the following recitations from claim 84 in an immediately discernible fashion:

- 1) the recited “plurality of discrete signals”;
- 2) the recited “separate ones” of said plurality of discrete signals;
- 3) the recited “information content” of said “separate ones”;
- 4) the recited “at least one processor instruction” that was comprised of said “information content”.

**EXAMPLE #29:** Claim 84 now explicitly recites step of:

- 1) “receiving video at a transmitter station”; and
- 2) “delivering said video to a transmitter”.

On page 42 of 231 in appendix A of applicant’s last response, applicant now suggests that these two explicitly recited steps would have been immediately discerned in the originally filed instant disclosure from the passage:

“Then the host says, “Now as we turn to the graphs, here is what the Dow Jones Industrials did the week just past,” and a studio generated graphics is transmitted. Fig. 1B shows the image of said graphic as it appears on the video screen of TV monitor, 202M.”

The examiner thinks not. At best, the examiner only sees a step of “generating” and a step of “transmitting” in the passage that has now been cited by applicant.

**EXAMPLE #30:** With respect to claim 84, it is not clear where applicant’s originally filed instant disclosure described the step of “receiving a first discrete signal” that is now being explicitly recited in line 10 of claim 84 [e.g. at best, there only appears to be support for steps of “embedding” and “transmitting” in the passages that have been cited on page 42 of 231 in appendix A of applicant’s last response].

**EXAMPLE #31:** With respect to the recitations of claim 84, it is not clear where applicant’s originally filed instant disclosure described/defined “the information content”, of the separate ones of the plurality of discrete signals, that comprises the “processor instruction” that are provided at the receiver station by

the first discrete signal. Namely:

- 1) to exactly what from the originally filed instant disclosure does this recited "information content" refer ?; and
- 2) to exactly what from the originally filed instant disclosure does the recited "first" and "second" discrete signals refer?.

**EXAMPLE #32:** With respect to claim 84, it is not clear where applicant's originally filed instant disclosure described the recited "plurality of discrete signals" wherein:

- 1) a "first discrete signal" of said plurality of discrete signals enabled said at least one receiver station to organize information contained within itself (i.e. contained within the "first discrete signal") with information contained within a "second discrete signal" from said plurality of discrete signals;

- 2) where, by enabling the at least one receiver station to organize information from itself and the second discrete signal, said "first discrete signal" was operative to provide at least one processor instruction at said at least one receiver station; and

wherein:

- 3) this at least one processor instruction that was provided at the at least one receiver station by said "first discrete signal":

- A) Comprised the information content of separate ones of said plurality of discrete signals of which the first and second discrete

signal are part; and

B) instructed the at least one receiver station to deliver a locally generated image for display in conjunction with said video.

**EXAMPLE #33:** With respect to claim 84, it is not clear where the originally filed instant disclosure described a step of “transferring” said “first discrete signal”, i.e. the one whose function has been specifically defined within the claim, “said transmitter” from which the video has been transmitted.

**EXAMPLE #34:** In appendix A of his last response, applicant has cited the following statement from his originally filed instant disclosure:

“Subsequently, a second series of instructions is embedded and transmitted at said program originating studio”

as providing section 112-1 support for all three of the following positively recited steps of claim 84:

- 1) the step of “receiving a first discrete signal of said plurality of discrete signals at said transmitter station”;
- 2) the step of “transferring said first discrete signal to” a transmitter; and
- 3) the step of “transmitting said video and said first discrete signal to said

at least one receiver station”.

Even if all of the steps were obvious from the citation, “obviousness” cannot be used as a grounds for obtaining/establishing section 112-1 support for the limitations of pending amended. Further, in accordance with the requirements of section 112-1, a determination must be made as to whether one skilled in the art would have “immediately discerned” the steps/method that is now claimed from the instant disclosure as originally filed. The examiner maintains that the recitations of amended claim 84 fail to pass section 112-1 muster on both accounts (i.e. as originally filed, there is no evidence that applicant recognized the significance of, and/or possessed, a method which includes the sequence of steps that are now being positively recited in amended claim 84).

**EXAMPLE #35:** The examiner notes that the term “SPAM” was generically used by applicant in order to refer to applicant’s own packetized data structure/transmissions by which **all** of applicant’s supplementary program information/signals/commands/instructions were embedded within the programing for distribution to stations of the network; e.g. to applicant’s own version of an “extended teletext system. Being such, when applicant cites broad/generic discussions of “SPAM” from his originally filed disclosure in order to allege that there is section 112-1 within the originally filed instant disclosure for steps which are directed to the processing specific types of information/signals/commands/instructions, such it is not unlike arguing: “it is in there!”. Specifically, it is understood that all of applicant’s recited



information/signals/commands/instructions must somehow fall within the generic umbrella the originally described "SPAM" (if they are to be supported). The question which has been asked by the examiner is: "HOW?" Specifically, to exactly what of the "SPAM" structure/transmission does each recited information/signal/command/instruction component refer?

With respect to claim 93, the examiner maintains that the showing in appendix A of applicant's last response [i.e. pages 49 of 231 through 62 of 231] at least fails to show were claim 93 as a whole was described, in the required "immediately discernible" fashion, within applicant's instant 1987 disclosure as originally filed; i.e. applicant's "In General" teaching appear only to cite broad/generic discussion of "SPAM" signaling and thus, for the reasons described above, represent nothing more than a statement that: "the support is in there!". The same question remains: "Where?" The alleged "specific" teachings have only been discussed in terms of each recitation and it remains unclear where each recitation was originally described in the context of the method that is now being recited; i.e. again, where was the method that is now recited in claim 93 described in the originally filed disclosure in the required "immediately discernible" fashion.

**EXAMPLE #36:** Claim 93 positively recites a step of receiving "at least one information transmission" at a receiver station wherein said at least one information transmission contains:

"at least one first discrete signal and at least one control signal."

In appendix A of applicant's last response, applicant alleges that the "at least one

control signal" recitation derives section 112-1 support from the originally described "first and second messages" of applicant's own originally described "example #3". Likewise, applicant also alleges that the "at least one first discrete signal" recitation derives section 112-1 support from the originally described "signal words" of applicant's own originally described "example #3". The examiner disagrees for the following reasons:

1) First, the examiner maintains that the introduction of new nomenclature via the amended claim would have made it impossible, in the context of the originally filed instant disclosure, for one of ordinary skill in the art to have "immediately discerned" that which is now claimed (i.e. applicant now alleges that the recited "control signals" refers to originally disclosed "messages"; that the recited "first discrete signals" refers to originally disclosed "signal words"; etc,...); and

1) As currently recited in claim 93, the recited "information transmission" contains two components: e.g. 1) the discrete first signals; and 2) the control signals. However, as originally described within the alleged support cited by applicant in appendix A of his last response, the originally disclosed "information transmission" contained only one of the two recited components: e.g. that being the originally disclosed "messages" (i.e. allegedly corresponding to the currently recited "control signals).

Specifically, as originally described, the "signal words" (e.g. the recited "first discrete signals") were actually derived by detecting embedded information within the "messages" that were contained within the

“information transmission”.

Similar problems exist throughout claim 93. Being such, one skilled in the art would not have “immediately discerned” the method that is now claimed from applicant’s originally filed disclosure. In fact, even today, trying to figure out what is being claimed is a chore even with pages 49 of 231 through 62 of 231 of appendix A of applicant’s last response sitting in front of one (the claim continues to be anything but “immediately discernible”).

The examiner maintains that all of applicant’s currently pending/amended claims 56-182 fail to meet the requirements of section 112-1 for reasons that are the same (and/or similar) to those which have been illustrated above. Confirmation of the examiner’s can be obtained simply by trying to locate section 112-1 for the claims using appendix A of applicant’s last response as an alleged road map (i.e. the section 112-1 support that is alleged in this table for each claim was anything but “immediately discernible”).

28. Those of claims 56-182 which are directed to the processing/distribution of digital television programming (e.g. claims 61 and 62) are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

A). PREFACE:

- 1) For the purpose of this rejection, the examiner has assumed that applicant is actually claiming "digital television" which he recites "digital television" [note "SECTION V" of this Office action]; and
- 2) As per an earlier agreement, copies of the "prior art" cited in section "B)" of this paragraph have not been provided with this Office action since such copies were previously provided in co-pending application S.N. 08/449,097.

B) THE ORIGINAL "DIGITAL TELEVISION" REJECTION:

A) Applicant has now presented claims which appear to be directed to the distribution of "digital television signals". Applicant alleges that the distribution of such "digital television signals" was described by applicants original disclosure. With respect to this allegation, the following is noted:

I. As originally drafted, it seems apparent that applicant uses the terminology "digital television signals" to refer to conventional television signals, e.g. representing conventional television programming, which comprised digitized audio and digitized video signal components [SEE "Example #7" which begins of page 288 of applicant's current disclosure]. However, as originally filed, applicant's disclosure clearly lacked any specific description: a) as to how the "digital television signals" of applicant's alleged invention(s) were to have been formatted for transmission over their disclosed television distribution system *using the method(s) that are now recited in the pending claims*; and b) as to how the transmission circuitry of applicant's alleged invention(s) was modified and/or configured for the purpose of handling these digital television signals *in the manner that is now recited in the pending claims*. Apparent justification for the lack of such teachings in applicant's originally filed disclosure seems to be based: 1) on the allegation put forth by the original disclosure that "digital television signals", of the type described/claimed, were well known in the art at the time of applicant's alleged invention [note lines 30-33 on page 288 of applicant's disclosure]; and 2) on the apparent assumption that the "digital television signals" of applicant's disclosure could be handled/transmitted in a manner that was interchangeable with the handling and transmission of conventional

analog television signals.<sup>87</sup> The examiner maintains that, at the time of applicant's alleged invention, such allegations and assumptions were in error.

Here, the examiner emphasizes that he does not dispute the fact that broadcasting digitally formatted television signals was in fact well known to those skilled in the art at the time of applicant's alleged invention. Specifically, the examiner acknowledges that the transmission of digital television signals was in fact known when, under "rare" circumstances, a transmission channel of sufficient bandwidth for such digital television signals was available.

However, it is noted that the transmission of conventional digital television signals was not interchangeable with the transmission of analog television signal as assumed by applicant's original disclosure because of the extremely large bandwidth that was required to transmit conventional digital television signals; i.e. this was true even when the digital television signals had been compressed using state of the art bandwidth compression techniques [1][2][3].

Given the above, the examiner maintains that the description found in applicant's original disclosure pertaining to the

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<sup>87</sup> For example, the disclosure described portions of applicant's alleged invention(s) as having operated to transmit digital television signals over a TV channel during a first period of time and as having transmitted analog television signals over said same channel during a subsequent period of time [see lines 1-5 on page 302 of applicant's disclosure]. No discussion as to any difference in the handling of the two different television signals by the alleged invention(s) was ever provided, suggested, or recognized via applicant's original disclosure.

transmission of "digital television signals" using applicant's alleged invention(s) was insufficient to have enabled the pending claims. Specifically, it is maintained that applicant's original disclosure at least failed to disclose and describe the manner in which the recited "digital television signals" had to have been compressed, formatted, and/or processed so as to have enabled them to have been distributed the manner that was originally described; e.g. the manner that now seems to be claimed.

*Because of the above, applicant has been requested to submit evidence (e.g. a US Patent or a printed publication) to show support the allegations and assumptions on which applicant's original disclosure was clearly based; i.e. references which show the means needed to format and transmit "digital television signals" in a manner required by applicant's disclosed/claimed invention(s) were in fact well known to those skilled in the art at the time of applicant's alleged invention.*

II. The examiner also points out that even those sections of applicant's original disclosure which seems to be directed to the transmission of "digital television signals", e.g. "Example.#7" which begins on page 288 of applicant's disclosure, provide few clues as to how the recited "digital television signals" were to have been compressed, formatted, handled, and transmitted by applicant's

alleged invention(s) in order to have allowed them to be processed in the manner that is now set forth in the pending claims. For example, the description of applicant's alleged invention(s) failed to explain: 1) how the "digital television signals" of applicant's alleged invention(s) were formatted and/or compressed so as to have allowed them to have been handled, transmitted, and/or processed in the manner that is now recited in the pending claims; 2) how the "digital television signals" of applicant's alleged invention(s) were formatted and/or compressed so that they could be transmitted over the same TV channel that was used to carry conventional analog TV broadcasts as originally disclosed [see lines 1-5 on page 302 of applicant's disclosure]; 3) how the subscriber stations of applicant's alleged invention were modified in order to have handled/processed "digital television signals" in the manner that is now claimed; 4) how the "SPAM" messages of subscriber stations were to have been embedded in the "digital television signals", how said "SPAM" messages were to have been carried by said digitally formatted television signals, and how said "SPAM" messages were to have been extracted from digitally formatted television signals; 5) how the bit-rate of the "SPAM" messages that were carried by said digital television signals was related to the bit-rate of the digital television signals into which they were embedded and how this bit rate related to the bit-rate of the "SPAM" signals that were carried



in the analog television signals and how the disclosed/claimed system was configured to handle any such differences [e.g. while not addressed in applicant's original disclosure, it appears that the differences between the bandwidth of digital television signals and analog television signals would require corresponding changes in the bit-rate of the "SPAM" messages that were embedded in respective ones of the two types of television signals].

III. For the reasons set forth in parts "I" and "II" of this paragraph, the examiner maintains that the pending claims which are directed to the handling/transmission of "digital television signals" were not enabled by applicant's original disclosure because the allegations and assumptions on which the disclosed handling/transmission of such digital television signals was based appear to have been erroneous. The examiner maintains that these pending claims represent an *invitation to experimentation* when read in the context of the state of the "digital television signal" transmission art which actually existed at the time of applicant's alleged invention; i.e. the technology required to have handled/transmitted "digital television signals" in the manner that was disclosed, and thus in the manner that is apparently claimed, does not appear to have existed at the time of applicant's alleged invention.

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THE PRIOR ART SUPPORT FOR THE REJECTION:

[1] The publication "Digital Television Transmission With 34 Mbit/s" by Burkhardt et al. evidences a conventional transmission system in which a Television signal was broadcasted in a digital format [see figure 2]. Even though the bandwidth of the digital television signal was compressed prior to transmission, said digital signal still required a 22MHz transmission channel [see the second paragraph under the heading "Bit-Rate Reduction" on page 244]; i.e. wherein a bandwidth of 22MHz is almost 4X that of a standard 6 MHz TV channel used for analog television signal transmission.

[2] The US Patent No. 3,755,624 to Sekimoto evidences a conventional system in which a television signal was digitally formatted and bandwidth compressed prior to broadcast. The resulting bit-rate of this compressed digital television signal was 32 Mbit/s which required a bandwidth more than 3X that of said standard 6MHz Tv channel.

[3] The US Patent No. 4,742,543 to Fredericksen illustrates a system in which a television signal was processed on the transmitter side of a broadcast system in a digital data format [see figure 1]. However, prior to broadcast, Fredericksen converted the digital

television signal back into an analog signal format (@33). Such D/A conversion was described as having been necessary because the standard analog TV channel that was used to transmit the television signal was not of sufficient bandwidth to carry the signal in its digital format (note lines 18-23 of column 5). This provides further evidence that conventional "digital television signals" could not be handled in the manner described by applicant of his alleged invention(s).

**C) ADDRESSING APPLICANT'S ARGUMENTS AND SUBMISSIONS:**

1) The examiner notes that term "digital television" only appears once within the entire 557 pages of applicant's originally filed disclosure and that occurs in line 16 on page 458. However, even here, the specific context in which it is being used is far from clear; i.e. does it refer to the transmission of digital TV programming?, does it refer to the transmission of digital still picture frames in a digital video format?, or does it refer to something else?.....*WHO KNOWS?* In any event, the examiner does not believe that this lone occurrence the "digital television" terminology in the entire 557 pages of applicant's instant specification, i.e. which appears within the phrase "digital television transmission" and not "digital television signal", provides the required antecedent basis or the required section 112-1 support for the use of the "digital television signal" terminology within in the context of all of the presently pending amended claims into which it has

now been added/introduced. On its face, the examiner finds it difficult to accept applicant's allegation that his disclosure could have adequately disclosed or described the numerous methods and structures for distributing and processing "digital television signal" which are now allegedly being claimed, when the term "digital television signal" itself does not appear anywhere within the 557 pages of his originally filed disclosure <sup>38</sup>.

2) While the term "digital television signals" does not occur anywhere within applicant's originally filed disclosure, applicant's originally filed disclosure did set forth "Example #7", whose description begins on page 288 of applicant's original written description, which allegedly operated to transmit "*well known*" digital video and digital audio signals; i.e. a "digitized television signal" (?). While much of the "Example #7" description remains unclear to the examiner, what seems quite clear is that "Example #7" sets forth an embodiment in which:

a) an television origination station was configured so as to selectively output analog television signals and digitized television signals; and

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<sup>38</sup> In the past, applicant has alleged that his right to be his own lexicographer gives him the right to introduce the "digital television signal" terminology into his pending amended claims. The examiner maintains that this is only true if when applicant or the record clearly explicitly defines the newly introduced terminology in a manner which is consistent with the scope of the originally filed disclosure and is consistent with the normal accepted meaning of the introduced terminology. The examiner maintains that applicant continues to fail to meet such a burden on both accounts; i.e. applicant refused to explicitly define the meaning of this introduced "digital television signal" terminology and one can only guess as to its intended scope meaning based on applicant's originally filed disclosure.

b) a television distribution network was configured to distribute the originated analog television signals and originated digitized television signals over the same "pipes" during respective times of the day [i.e. SEE lines 1-5 on page 302].

The examiner maintains that this description was not enabling at the time of applicant's alleged invention because it seems to be based: on a basic misunderstanding as to the very diverse nature of analog and digital television transmissions (i.e. on the erroneous assumption that analog and digital television transmissions are simply interchangeable); and/or on the erroneous assumption that bandwidth compression technology existed in 1987 which would have allowed such analog and digital transmission interchange ability [note "THE ORIGINAL" rejection that is set forth in part "B" of this paragraph]. Trying to have made and used the system which was founded in such misunderstanding or based on such erroneous assumptions (i.e. that which is now allegedly being claimed) would have been impossible. The examiner notes the following:

a) At the time of applicant's alleged invention, those of ordinary skill in the art had long recognized the many benefits that could be obtained by processing and transmitting "digital television signals" in place of "analog television signals". However, those of ordinary skill in the art understood that there was a "big catch" attached to digitized television signal transmission which prevented its use.

Namely, the "pipes"/circuitry needed to distribute and process the

"digital television signals" of the day had to be of an unacceptably large bandwidth; i.e. many times greater than those used to distribute and process their analog counterparts<sup>89</sup>. One simply could not transmit and process digital television signals using the same "pipes"/circuitry which carried/processed analog television signals as erroneously alleged/described/assumed within the "Example #7" embodiment of applicant's originally filed disclosure [i.e. again, note lines 1-5 on page 302]. Simply put, applicant's originally filed disclosure contributed absolutely nothing to the digital TV broadcast art which would have enabled one of ordinary skill in the art to have overcome the well known bandwidth "catch" inherent to digital television signal transmission. Instead, it appears that applicant's original disclosure chose to ignore the bandwidth problem (or failed to recognize that it even existed). Unfortunately, this bandwidth "catch" could not be ignored by those of ordinary skill in the art when trying to implement that which applicant described and now (apparently) claims. Being such, applicant's example #7 description was not enabling of that which it described (i.e. that which is now allegedly claimed);

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<sup>89</sup> SEE: the article "A Primer on Digital Television" by Howell on pages 538-541 of the July 1975 issue of the *Journal of the SMPTE* (volume 84); the article "Goodbye, TV Snow" by Ferre on pages 14-22 of the May 1977 issue of *Electronic Servicing*; and the article "The Impact of Digital Techniques on Studio Equipment" by F.G. Parker (i.e. cited by applicant).

b) What has now made the broadcast/distribution of "digital television signals" possible in today's world, i.e. in the year 2001, has been the discovery, *by others*, of high compression ratio algorithms which now allow broadcast quality television signals to be carried/distributed via "pipes" of conventional/available bandwidth. Applicant's original 1987 disclosure contributed nothing to these enabling advancements in the compression technology nor could it possibly be based on such advancements in view that they did not exist as of applicant's original 1987 filing date. Thus, it seems that applicant's allusions to the distribution/processing of digital video/audio signals in "Example #7" represented, at best, an understanding or recognition on the part of applicant that digital television signal transmission systems would probably be realized some time in the coming future and, at such a time, that that which applicant described as "Example #7" might then be applied/extended thereto<sup>90</sup>; and

c) Applicant's original 1987 disclosure, clearly alleged that the "[digital] television signal" of applicant's "Example #7" embodiment, i.e. one consisting of so-called "digital video" and "digital audio", was *well known in the art* at the time of applicant:

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<sup>90</sup> The examiner is not acknowledging that he understands applicant's example #7 description in terms of how it supports the pending claims [i.e. an issue which will be addressed under the adequate written description requirement of section 112-1]

alleged invention [see lines 30-33 on page 288 of applicant's written description]. In the past, after his review of the 2000+ references submitted by applicant failed to find such a showing, the examiner *required* applicant to submit a reference to support the allegation made in applicant's disclosure; i.e. that such described [digital] television signals were in fact "well known" [again, note "THE ORIGINAL" rejection of part "B" above]. In response to this requirement, applicant submitted US Patent #3,906,480 to Schwartz et al. However, Schwartz et al. seems to be totally unrelated to the alleged "[digital] television signals" of applicant's "Example #7" embodiment. For example, the digital video signals described in the Schwartz et al. patent represented non-real non-real-time computer generated, vector encoded, symbolic and alphanumeric images. Such a transmission scheme could not have been used to carry/transmit the digital video component of conventional television signals/programming of the type that is set forth by applicant's "Example #7". For applicant to suggest that teaching of Schwartz et al. be used as scheme for producing the "digital video" of his "Example #7", given its completely non-analogous nature, would be an invitation to experimentation even by today's standards!



## **SECTION XI: (Preface to the Rejection of Claims**

**Based on Prior Art Applied Under Sections 102 and 103).**

### **A. APPLICANT'S ALLEGED INVENTION REPRESENTS APPLICANT'S OWN VERSION OF AN "EXTENDED" TELETEXT TRANSMISSION SCHEME (AND APPLICATIONS THEREOF):**

As best understood by the examiner, applicant's instant 1987 disclosure described a television distribution system in which digitally encoded "SPAM message" packets were generated by a SPAM signal source and embedded, preferably, into the vertical blanking interval (VBI) of TV programming that was provided from a TV studio (i.e. the network/originating TV station). The TV programming along with its embedded SPAM message packets were then distributed/transmitted from a network/originating TV station, via a television distribution network, to various "receiver stations" which were situated throughout the distribution network; i.e. wherein the term "receiver station" was used by applicant in a way that encompasses both "intermediate TV broadcast stations" and "ultimate household receiver stations". At ones of the receiver stations, ones of the "SPAM message" packets were received (i.e. extracted from the TV programming), identified, decoded, and processed or outputted by SPAM signal receiving/decoding circuitry.

In the preferred embodiment, the SPAM signal receiving/decoding circuitry was implemented using software driven processors.

As also described in applicant's 1987 disclosure, the SPAM message packets that were distributed by applicant's television distribution system carried information pertaining to a wide variety of control, monitoring, and messaging functions. More specifically, the information carried by the SPAM message packets could be used to: 1) to distribute display information to ones of the receiver stations; 2) to distribute monitoring information to ones of the receiver stations; 3) to distribute program identification codes to ones of the receiver stations; 4) to distribute cuing/triggering signals to ones of the receiver stations; 5) to distribute computer software to ones of the receiver stations; 6) to distribute commands to ones of the receiver stations; etc,...

The following is noted:

1) In the past, the examiner argued that applicant's SPAM message packets comprised little more than applicant's own variation of conventional packetized teletext data. At that time, applicant disagreed with the examiner's position arguing that term "teletext" referred *only* to the transmission of digitally coded character/graphics codes. Strictly speaking, applicant was correct. What the examiner should have stated was that applicant's SPAM message packets comprise little more than applicant's own variation of conventional digitally encoded "insertion/ancillary signals"; i.e. of which packetized "teletext data" was a known/conventional subset [NOTE APPENDIX III OF THIS OFFICE ACTION]. While

the examiner is willing to accept/entertain applicant's strict interpretation of the term "teletext", the examiner nonetheless points out that it was notoriously well known in the art to have "extended" the use of conventional Teletext data packets within conventional teletext distribution systems to carry information/data other than digitally coded character/graphics codes; i.e. to have carried ancillary data other than "teletext data" as strictly defined by applicant [e.g. Telesoftware (computer software) being but one example of these known teletext packet "extensions"]]. Applicant's SPAM packets appear to be little more than applicant's own version of such an "extended" teletext system. Being such, it appears that the arguments that were previously presented by applicant merely focussed on the technicality those data packets of an "extended" teletext distribution system which carry *other types of information* are not, strictly speaking, packets of teletext data packets; i.e. they do not carry character/graphics codes. So what!

The fact remains that the generation and embedding of digitally encoded packetized data within the VBI of distributed TV programming, e.g. in the form of digitally encoded "insertion/ancillary signals" including packetized "teletext data", was notoriously well known in the art at the time of applicant's alleged invention. It remains the examiner's position that the generation and embedding of SPAM! message packets into the VBI of distributed TV programming, as described in applicant's own 1987

disclosure, represents applicant own variation on this notoriously well known theme. The examiner is not to saying that applicant's own variation/application/implementation of such insertion/ancillary systems are necessarily unpatentable based solely on this fact. However, the examiner is stressing the point that the applied prior art of record, e.g. particularly the "teletext" prior art, is far more closely related to applicant's alleged invention than the terminology used throughout applicant's claims and disclosure suggest. Likewise, it is believed that the prior art of record, e.g. particularly the "teletext" prior art, is also far more closely related to applicant's alleged invention than applicant has ever been willing to acknowledge <sup>91</sup>. In view of this, the examiner maintains that extreme care is needed as one attempts to decipher the scope/meaning of applicant's pending claims in the search of recited differences that do more than give an appearance or impression of patentability. To this point, the following is noted:

1) Many of applicant's claims recite various "discrete signals". As set forth in Appendix A of applicant's latest response, all of the various "discrete signals" are allegedly supported solely by the fact that the SPAM signals of his 1987 disclosure comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions. The examiner maintains that, by giving such a broad meaning to the recited

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<sup>91</sup> Obviously the reason so much teletext "prior art" art has been made of record by all involved!

“discrete signal” terminology, the recited “discrete signal” terminology does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded “insertion/ancillary signals”, e.g. packetized “teletext data” of the applied prior art, implicitly comprised: discrete words, discrete packets, discrete sequences of packets, discrete header portions, and discrete information portions too. Hence, the various “discrete signals” recitations of the claims appear to be nothing more than a *straw man*.

2) Many of applicant’s claims recite pluralities of *separate* steps for embedding, transferring, transmitting, and receiving *separately* recited “discrete signals”, “instructions”, “instruction signals”, and “control signals”. However, when specifying where these *separate* steps allegedly derive support from his 1987 disclosure [see Appendix A of applicant’s latest response], applicant points to the *same* disclosed “step”(?) in which the SPAM messages themselves were generically described as being originated , embedded, transferred, transmitted, and then received. Thus, based on applicant’s citation of alleged support from Appendix A of applicant’s latest response, it appears to be applicant’s position that all of these separately recited steps from applicant’s claims were obviously/implicitly described in his 1987

disclosure by the described generation, embedding, transferring, transmitting, and receiving of the SPAM messages themselves. Specifically, applicant appears to allege that any step/process which was described as having been performed on the SPAM messages themselves was also, implicitly, performed separately on each component thereof ( wherein the SPAM messages themselves comprised different discrete signals, different instruction signals, different instructions, and different control signals). More specifically, it appears to be applicant's position that because the disclosure described the generation, embedding, transferring, transmitting, and receiving of SPAM messages, said disclosure implicitly described the generation, embedding, transferring, transmitting, and receiving of the different discrete signals, different instruction signals, different instructions, and different control signals which comprised the SPAM messages [e.g. note that Appendix A of applicant's last response alleges that support for many of the separately recited steps and signals (i.e. instructions and control signals) is derived the same step of processing the same "second series of instructions"]. Overlooking the issue as to whether this kind of *implied* support meets the "immediately discernible" description requirement of section 112-1 (in the examiner's opinion, it does not), it is evident that **separately** reciting the same disclosed step/process numerous times in a single

claim does little to nothing to overcome/avoid the applied prior art of record because the digitally encoded "insertion/ancillary data" of the applied prior art, e.g. packetized "teletext data", also obviously/implicitly comprised different instructions, different control signals, different instruction signals, and different discrete signals and therefor, following applicant's own reasoning and justification, also obviously/implicitly comprised **separate** steps of generating, embedding, transferring, transmitting, and receiving each of the insertion/ancillary signal components. Again, reciting pluralities of **separate steps** which simply describe the same steps of processing and transmitting generic SPAM message packets constitutes another *straw man* (i.e. albeit, a convoluted and confusing *straw man*);

3) Many of applicant's claims recite that each receiver station "includes a receiver, a signal detector, a processor, and an output device." The examiner maintains that such structure is part of any/all TV receivers and is also part of any/all digitally encoded insertion/ancillary signal receivers/decoders; i.e. any/all TV receivers and insertion/ancillary signal receivers/decoders must have comprised circuitry for receiving the transmitted/broadcasted signals, circuitry for demodulating/detecting the transmitted/broadcasted signal, circuitry for processing the

demodulated signals; and circuitry for outputting/displaying data/information based on the received signals. Thus, the examiner maintains that these recitations also constitute nothing more than *straw men* [for example, see "EXAMPLE #11" in the second paragraph under the heading "SECTION X" of this Office action]

4) Many of applicant's claims include words or phrases which initially appear to be significant but, upon close inspection, add nothing of substance to the claim(s). For example: the recitation of "at a particular place and time" in claim 67 (i.e. any signal that is received will be received at a particular place and time); the recitation of a "target" processor in claim 75 (i.e. any processor which receives information directed to it is at least *targeted* by that information); the recitation of "before a specific time" in claim 80 (i.e. all signals must be transmitted from the transmission side before "some specific time" at which they are received on the receiver side); etc,... Simply more *straw men*!

**B. APPLICANT'S CURRENTLY PENDING CLAIMS ARE**

**NOT ENTITLED TO THE 11/3/81 FILING DATE FOR**

**REASONS WHICH HAVE BEEN FULLY ADDRESSED**

**ABOVE.** [NOTE: "SECTION I" AND "SECTION III" OF THIS OFFICE



ACTION].

### C. "PRIOR ART" WORTH NOTING:

I. Nishihara [Japanese Patent document # 58-209276] has been cited for its showing of a TV receiver which, in response to the detection of header/control signals in received "program related" teletext pages, produced an on-screen message/caption which signaled the TV user/viewer that program related teletext pages were "available" (e.g. for selection, superimposure, and display) within the TV broadcast currently being received/watched/displayed. Specifically, Nishihara was cited for the following showings:

1) That it was conventional for Teletext transmission services to have dedicated specific ones of their teletext pages (i.e. specific page numbers) to:

A) the transmission of independent teletext pages whose image content was unrelated to the content of the TV programming in which it was embedded/transmitted; and

B) the transmission of "program related" teletext pages whose image content "supplemented" the content of the TV programming in which it was embedded/transmitted.

[note the paragraph which begins in the last 6 lines on page 3 of the attached translation]

2) That it was conventional for the receivers of such systems to have comprised:

A) circuitry for detecting the presence/receipt of the "program related" teletext pages within the TV programming broadcast that is currently being received and displayed:

B) circuitry for provided the user/subscriber with an indication as to the detected presence/receipt of the "program related" teletext pages within the TV programming broadcast that is currently being received via either:

1. A caption/message that is overlaid over the displayed TV picture as an indication as to the availability of

additional/supplemental information; or

2. A separate indicator (i.e. a lamp/LED) that is lit as the indication as to the availability of additional/supplemental information.

[note lines 16-20 on page 8 of the attached translation]

3) That it was conventional to have selectively overlaid the "program related" teletext image data over the displayed TV programming when so desired/selected by the user.

[note lines 1-6 on page 4 of the attached translation]

4) That it was conventional/frequent to have implemented all of the different processing functions which comprise the typical teletext data receiving/decoding circuitry using an appropriately programmed microcomputer

[note the paragraph that begins in the last 4 lines on page 8 of the attached translation and extends to the first 5 lines on page 9 of the attached translation].

## SECTION XII: (Rejections Under Section 103)

29. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229].

### I. PREFACE:

A) As explained above, applicant's currently pending claims are (at best) only entitled to the 9/11/87 filing date of CIP 96,096 which represents the earliest filed application within applicant's chain of applications that contained the same 557 page written description of the instant application (see "SECTION I" of this Office action).

B) As explained in part "I)" of "SECTION II" of this Office action, images generated by teletext decoders from received teletext data constituted "locally generated images".

### II. THE SHOWING OF GARGINI ET AL.:

Gargini et al. disclosed a communication system which comprised a headend station (@105), a distribution network/exchange (@109), and a plurality of subscriber station (@108) [see figure 12]. As is described in lines 64-88 on page 9 of this document, the disclosed communication system was configured to allow:

1) the headend to transmit a teletext service to all of the subscriber stations over one or more teletext channels;

- 2) a unique sub-page within transmitted teletext service to be assigned/dedicated to each subscriber stations thereby providing the system with a way to transmit "personal (*subscriber specific*) messages" from the headend to each of the subscriber's subscriber stations;
- 3) the headend to transmit one or more interactive TV programs/broadcasts to all of the subscriber stations over one or more TV channels;
- 4) each of the subscriber stations to be selectively tuned to receive and display the interactive TV programs/broadcasts that its respective subscriber desires/"requested";
- 5) each of the subscribers to be solicited for a response by the interactive TV programming that is being displayed at his/her subscriber station;
- 6) each subscriber to input, at his/her station, the solicited response;
- 7) each of the subscribers' solicited responses to be transmitted back to the headend station;
- 8) the headend station to generate respective "personal (subscriber specific) teletext messages" that acknowledge, respectively, each of the received subscribers' responses;
- 9) the headend to transmit each of these generated "personal (subscriber specific) teletext messages" to the corresponding subscriber station via the subscriber's uniquely assigned teletext sub-page;
- 10) each of the subscriber stations to be momentarily tuned, at the appropriate time, to the teletext channel on which the subscriber's

“personal teletext messages” is carried.

11) each of the subscriber stations to receive its respective “personal (subscriber specific) teletext message”, at said appropriate time, by detecting, within the teletext channel to which the receiver station has been momentarily tunes, the receipt of the teletext sub-page # corresponding to the sub-page that has been assigned/dedicated to the respective subscriber/station;

12) each subscriber station to decode its own received “personal teletext message” so as to locally generate a displayable teletext image representative of said personal message; and

13) each subscriber station to inlay its locally generated teletext image into the received interactive TV programming thereby producing a combined interactive image presentation that is unique to each subscriber (i.e. it is at least subscriber specific).

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**The following is noted:**

1) That the “responses” to the interactive programming that were inputted by the subscribers in Gargini et al. comprised some type of “requests for presentation content” in that each response was (at least) “a request for a system response and/or acknowledgment” which caused/resulted in the downloading and display of the personal (subscriber specific) teletext messages’ “presentation content”; and

2) That the teletext data which represented the “personal teletext

messages" in Gargini et al. comprised teletext data that obviously served as the basis for the ultimately produced combined image presentation by being processed at the subscriber terminals in order to produce the locally generated teletext images that were outputted and displayed as part of the combined presentation.

30. Claims 57-74, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229] for the same reasons that were set forth for claim 56 above.

1) The examiner notes that the subscriber stations in Gargini et al. were described as having comprised a teletext decoder. Because the structure that was actually used/needed to implement these teletext decoders was not specified by Gargini et al., one of ordinary skill in the art would have had to turn to the prior art for such knowledge. The examiner maintains that it would have been obvious to have implemented the required teletext decoder using a CPU/MPU type decoder in view of all the notoriously well known benefits that software driven teletext decoders had over hardwired decoder implementations; e.g. a fact for which the examiner takes "Official Notice" <sup>92</sup>.

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<sup>92</sup> e.g., the examiner points to German Patent Document #1,556,366 to Betts (note lines 50-55 on page 1 of this document) and/or to Japanese Patent Document #58-209276 to Nishihara (note the last four lines on page 8 and the first 5 lines on page 9 of the provided PTO translation) as being illustrative of this fact.

31. Claim 80-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229] for reasons that were set forth above for claim 56. Further, the following structure is noted:

As is shown in figure 1, the system disclosed by Gargini et al. comprised:

- 1) at least one "origination transmission station" for originating the various TV signals that were to be transmitted over the TV channels of the network [i.e. element 105 of figure 12];
- 2) at least one remote intermediate transmitter station for receiving and "transmitting" selected ones of the originated TV signals delivered to it by said origination station [i.e. exchange 109 of figure 12]; and
- 3) at least one receiver station for producing and displaying the "combined presentation" [i.e. 108 of figure 12].

32. Claims 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229] for the same reasons that were set forth for claims 57-74 and 89-91 above.

- 1) In Gargini et al., each teletext sub-page that is uniquely assigned/dedicated to a respective one of the subscriber stations represents packetized data that is addressed (e.g. "targeted") to the teletext decoder of the specific subscriber station to which the sub-page has been uniquely assigned/dedicated. The teletext data that is carried within these teletext sub-pages constitutes downloadable processor instructions in that it was stored and processed by each decoder, based on the sub-



page header/# which identified it (i.e. the recited "control signal"), so as to locally generate the teletext image data that was inlaid/superimposed over the video signal.<sup>93</sup>

33. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229]:

A) The system that was disclosed by Gargini et al. has already been described/addressed in the four paragraphs of this Office action that immediately precede the present paragraph. The presently introduced Baker Patent Document [EP Patent #152,251] sets forth an *improvement* which was to be added to this previously described/disclosed Gargini et al. system. Specifically, the Gargini et al. document [GB Patent #2,164,229] is from the same patent family, and is equivalent to, European Patent Document # 0,094,794 on which the Baker patent document is explicitly based [note lines 5-11 on page 4 and lines 30-33 on page 6 of Baker]. Thus, Baker discloses an *improvement* which was to be implemented, at least "preferably", within the context of the Gargini et al. system/disclosure as was described above; i.e. *Gargini et al. has been incorporated into the present rejection in order to establish the context in which the Baker improvement was originally described.*

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<sup>93</sup> Note: the discussion provided on page 5 of the appendix that was attached to a 1981 "PETITION FOR RULEMAKING" submitted to the FCC evidences the fact that it was notoriously well known in the art that transmitted teletext data typically comprised a "series of instructions" which instructed the teletext decoders on how to "generate" the desired images which were to be outputted/displayed.

B) As explained above, applicant's currently pending claims are (at best) only entitled to the 9/11/87 filing date of CIP 96,096 which represents the earliest filed application that contained the instant 557 page written description.

C) As explained in part 1) of "SECTION II" of this Office action, images generated from received teletext data obviously constituted "locally generated images"

D) As shown in its only figure, the Baker patent document described a system which comprises:

1) A subscriber terminal (2) which includes:

- a. A channel selector which allows the subscriber to request/select desired TV channels for viewing wherein said TV channels may include one or more secure channels;
- b. An input device such as a keyboard (not shown in the figure) for generating the "upstream data signal" that is provided at input 14;
- c. An algorithm storage device for storing downloaded encryption and decryption algorithms;
- d. A signal encryptor device (15) for encrypting the provided upstream data signal according to the downloaded encryption algorithm that is stored in the algorithm storage device 13;
- e. A signal receiver for:

1. receiving and displaying conventional analog TV signals

that correspond to the subscriber requested/selected TV channel;

2. receiving and extracting the downloaded encryption and decryption algorithms from a downstream data channel and for providing the extracted algorithms to the algorithm storage device 13 for storage therein;

3. receiving and extracting downloaded encrypted data which is then provided to decryptor (22) for decryption thereof; and

4. Receiving the decrypted data from decryptor (22) and for displaying the decrypted data by superimposing it over the displayed analog TV signal (i.e. thereby creating a combined medium display);

2) A CATV headend (3), or intermediate switching centre, which includes:

a. A secure channel detector (9) for controlling a channel selector (8) to provide the requested/selected TV channels to the subscribers over a distribution medium;

b. Secure channel generators (e.g. represented by element 20) for generating secure TV channel signals corresponding to respective secure data providers, wherein each of the secure TV channel signals comprised a conventional analog TV signal and an encrypted downstream data signal; and

c. Means for passing the encrypted upstream data signal from the

subscriber terminals to the appropriate secure channel central terminal (i.e. represented by element 1):

3) at least one central terminal (1) which includes:

a. An encryption and decryption algorithm generator (11) for:

1. generating the encryption and decryption algorithms

which are downloaded and stored at the subscriber

terminals; and

2. generating the encryption and decryption algorithms

which are locally stored to encrypt and decrypt the

downstream and upstream data signals that are provided

and received from the subscriber terminal, respectively;

b. An algorithm storage device (12) for storing the encryption and decryption algorithms provided from the generator (11);

c. An decryptor for decrypting the encrypted upstream data signal provide from the subscribers and for proving the decrypted upstream data signal to an computer controlled database;

d. An encryptor for encrypting the a downstream data signal provide by the computer controlled database for transmission to the subscribers.

In a preferred embodiment of Baker:

1) The downstream data signals that are provided to the subscriber terminals (2) from the central terminals (1) are provided within the selected secure TV channel in the form of encrypted teletext data packets [note

lines 30-35 of page 6 and lines 10-13 on page 3];

2) Each of the subscriber terminals (2) are implemented so as to include a "Level 4 Teletext Decoder" or a "Telesoftware adaptor" which is controlled from the headend (3) so as to be momentarily switch to a dedicated information channel in order to receive and extract **COMPUTER SOFTWARE/Telesoftware**, representing the downloaded encryption and decryption algorithms, from the dedicated information channel. This downloaded computer software is then loaded into, and run by, a local computer which then processes and decrypts encrypted those of the teletext data packets that are being carried on the selected secure channel which correspond to the data requested by the respective subscriber. [see lines 23-30 on page 7]

In summary, the preferred embodiment that was disclosed by Baker obviously, if not inherently, operated as follows:

- 1) A subscriber requests access to a desired secure channel database (i.e. such a "Bank") by switching his channel selector (7) to the secure TV channel that represents the desired secure channel database;
- 2) A headend (3), or intermediate switching centre, detects the subscriber request (@9) and causes a unique encryption and decryption algorithm, e.g. in the form of computer software/Telesoftware, to be downloaded and run within a computer of the subscriber's terminal;
- 3) The headend (3), or intermediate switching centre also causes, via

channel selector (8), the requested/selected secure TV channel to be supplied to the requesting subscriber; wherein the secure TV channel comprises an analog TV signal channel and a teletext data channel. This connection causes the analog TV signal portion of the secure TV signal to be displayed on the subscriber's receiver (i.e. @ 6);

4) Upon being connected to the requested secure TV channel, the subscriber enters his request for personal information (i.e. such as the balance of his bank account) via a keyboard (i.e. @ 14). This request is provided to the computer of the subscriber's terminal where it is encrypted using the downloaded software/Telesoftware encryption algorithm. The encrypted request is then transmitted to the central terminal (1) of the selected secure TV channel, via the headend (3), where it is decrypted (@16) and supplied (@ 17) to a computer controlled database (not shown).

5) In response to the received request (@ 17), the computer controlled database retrieves the requested information (i.e. the balance of the subscriber's bank account) and provides the requested information to the central terminal (@ 18). The central terminal encrypts this requested information (@ 19) so as to form encrypted teletext data packets. The encrypted teletext data packets are inserted into the VBI of the analog TV portion of the secure TV channel (@20) being transmitted to, and received by, the subscriber's receiver (6).

6) The encrypted teletext data packets that are received by the subscriber's

receiver (6) are extracted from the VBI and are provided to the computer of the subscriber's terminal. The computer decrypts the extracted teletext data packets and converts the decrypted packets into "locally generated" displayable teletext images. These displayable teletext images are superimposed over the displayed analog portion of the selected secure channel so as to convey the requested information (i.e. the account balance) to the subscriber.

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With respect to the claim limitations, the following is noted:

1) In Baker, a subscriber inputs a "request for an information content" by manually selecting the TV station that corresponds to the secure channel to be accessed. The subscriber's request is transmitted to the headend and, in response thereto, computer software/Telesoftware is downloaded to a computer that is located within the subscriber's terminal. This computer software/"Telesoftware" instructs the subscriber's computer as to how to process subsequently transmitted information/data (i.e. specifically, subsequently transmitted encrypted teletext data packets) so as to locally generate teletext image data for display. The locally generated teletext image data is then overlaid over related TV programming (i.e. the analog portion of the secure TV channel) so as to create a combined medium display/presentation comprised of said TV programming and said locally generated teletext images.

34. Claim 57-74 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claim 56 above.

35. Claim 75-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claim 56 above. The following is noted:

1) In Baker, the downloaded "Telesoftware" contains both: 1) downloaded instructions representing the decryption algorithm itself; and 2) a downloaded decryption "key" which is needed to execute the downloaded decryption algorithm. The recited "control signal" can be fairly read on this decryption key.

36. Claim 84-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claims 75-79 above.

37. Claim 93-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claims 75-79 above. The following is noted:

1) The recited "*first discrete signal*" corresponds to the encrypted teletext data packets described in Baker;

2) The recited "*control signal*" corresponds to the downloaded decryption key described in Baker;



3) The recited "*second discrete signal*" corresponds to the downloaded algorithms described in Baker ; and

4) The recited "processor" corresponds to the computer of the subscriber station that was described in Baker;

wherein:

a) the computer at the receiver station receives and processes the transmitted encrypted teletext data using the downloaded decryption algorithm, based on the downloaded decryption key, so as to locally generated teletext image data that is overlaid over portions of the image produced by the incoming analog video signal (i.e. thereby replacing said portions).

38. Claims 110-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claims 93-109 above. The following is noted:

In Baker, the first discrete signal, the second discrete signal, and the control signals are all relayed to the receiver station via at least one origination/transmitting stations.

39. Claims 116-122 and 142-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker [EP Patent #152,251] in view of Gargini et al. [GB Patent #2,164,229] for the same reason given for claims 110-115 above.

40. Claims 80-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229] in view of Baker [EP Patent #152,251].

I. The showing of Gargini et al.:

Gargini et al. described a system which comprised:

- 1) at least one "origination transmission station" for originating the various TV signals that were to be transmitted over the TV channels of the network [i.e. element 105 of figure 12];
- 2) at least one remote intermediate transmitter station for receiving and "transmitting" selected ones of the originated TV signals that were delivered to it from said origination station [i.e. exchange 109 of figure 12]; and
- 3) at least one receiver station for producing and displaying the "combined presentation" [i.e. 108 of figure 12].

II. The showing of Baker:

As has been noted above, Baker disclosed an *improvement* which (i.e. as was explicitly taught in Baker) was to be applied specifically to the system disclosed by Gargini et al.

[SEE: the above rejection of claim 75-79 under 35 U.S.C. 103(a) as being unpatentable over Baker in view of Gargini et al. whose discussion is hereby incorporated into this rejection]

### III. Obviousness:

The Baker disclosure explicitly taught “the obviousness” of having integrated the improvement disclosed by Baker into the network configuration disclosed by Gargini et al. [see lines 5-10 on page 4 of Baker <sup>94</sup>]. Specifically, Baker provided motivation for using his *improvement* explicitly for the purpose of encrypting and decrypting the teletext messages that were carried through network disclosed by Gargini et al. [see lines 30-35 on page 6 of Baker]. As shown in figure 12 of Gargini et al., one such modification would have resulted in:

- 1) an *origination station* (105) for receiving and transferring an analog video signal, representing the video portion of a selected “secure channel”, to a remote intermediate station (109) for subsequent transmission to at least one *receiver station* (108);
- 2) an *origination station* (105) for receiving and transferring a decryption algorithm and a decryption key from an teletext message source (107) to a remote intermediate station (109) for subsequent transmission to at least one *receiver station* (108);
- 3) an *origination station* (105) for receiving and transferring encrypted teletext message a teletext message source (107) to a remote intermediate station (109) for subsequent transmission to at least one *receiver station* (108);
- 4) an *origination station* (105) for receiving and transferring *control*

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<sup>94</sup> Gargini et al. [GB Patent #2,164,229] is from the same patent family, and is equivalent to, the European Patent Document # 0,094,794 into which the improvement of Baker was to be explicitly “integrated”.

*signals* to the remote intermediate station (109) to control the routing of the teletext data (i.e. decryption algorithm, decryption key, and messages) to the *receiver station* (108) [see lines 69-88 on page 9 of Gargini et al.]; and

5) at least one *receiver station* for displaying a “combined presentation” comprised of the encrypted/decrypted teletext messages overlaid over the corresponding analog video signal of a selected secure channel [see lines 78-88 on page 9 of Gargini et al.].

41. Claims 157-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gargini et al. [GB Patent #2,164,229] in view of Baker [EP Patent #152,251] for the same reasons that were set forth for claims 80-92 above.

42. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thonnart [US Patent #4,413,281].

I. The significance of the Thonnart showing:

Thonnart disclosed both a one-way pseudo-interactive embodiment (e.g. figure 3) and two-way interactive embodiment (e.g. figure 5) of a multimedia distribution network which operated to display a requested multimedia presentation comprised of a selected succession of audio commentary, video still images, and teletext character/graphics data which made up components of the requested multimedia presentation. The

requested multimedia presentation may, for example, represent a “relatively complex educational program” whose presentation depended on “the progress” (i.e. inputs/responses) of a respective viewer/student [note lines 39-45 of column 2]. Significantly, Thonnart recognized the need, or at least obviousness, of having used a downloaded “logic sequence” to each of the reception points (i.e. receiver stations) of the network, in addition to the text, audio, and video components of the multimedia presentation, in order to control the sequence in which selected ones of the text, audio, and video components of the requested multimedia presentation are displayed (i.e. particularly in the case of said “relatively complex educational program” presentations whose succession depended on the progress of the student/viewer [lines 39-45 of column 2]). To provide this receiver station programmability, each of the receiver stations comprised a “logic memory” (element 27 of figures 3 and 5) for receiving and storing the downloaded “logic sequence” as a “program” (i.e. software) which was used by the stations to control the “exploitation” (e.g. the reception and display) of the audio, video, and text components of the selected multimedia presentation based on the “progress” (i.e. inputs and responses) of the viewer/student [note: lines 39-45 of column 2; lines 35-44 of column 4; etc.,...].<sup>95</sup>

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<sup>95</sup> For completeness, the examiner points out that it was notoriously well known in the interactive audio/video distribution and display art, at the time of applicant's alleged invention, to have downloaded computer software programming (i.e. the “logic sequences” of Thonnart) to the display station terminal locations in order to have controlled the display of the audio, video, and text components of selected multimedia presentations based on user-subscriber inputs responses [e.g. SEE: Zaboklicki (DE 2,904,981); Patfield et al. (GB 2,167,917); Sugiyama (JP 60-123182); etc.,...].

## II. Thonnart as applied against claim 56:

As is shown in figure 5, Thonnart disclosed an interactive distribution and display network which, *at least obviously*, comprised:

- 1) an input device (29) by which a user/subscriber request for a desired multimedia presentation was "originated";
- 2) an upstream data channel (e.g. 33-36) by which the user's/subscriber's request was "communicated" to the controller (37) of a remote data source/server (e.g. 7, 24, 32, 37);
- 3) means at the receiver station, including logic memory 27, for "receiving" and "processing" data representing the downloaded "logic sequence" in order to present a multimedia presentation that includes *locally generated* teletext images<sup>96</sup>;
- 4) means at the receiver station which, under control of the downloaded logic sequence, displayed the locally generated teletext images "in conjunction with" (i.e. simultaneously or sequentially with) the other audio and video components of the selected multimedia presentation [lines 39-45 of column 2 and lines 25-27 of

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<sup>96</sup> Thonnart clearly indicated that the text component of the selected multimedia presentations was provided by teletext data transmissions [note lines 41-44 of column 4]. As has been addressed above, the data contained within such teletext transmission was not displayable data; i.e. the transmitted teletext data had to be processed, by a character graphics generator located within the teletext decoder of the receiver station, in order to "locally generate" the teletext images that were to be displayed.

column 6].

43. Claims 57-74, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thonnart [US Patent #4,413,281] for the same reasons that were set forth above for claim 56. Additionally, the following is noted:

- 1) In view of the description set forth in lines 41-44 of column 4 in Thonnart, the examiner maintains that it would have at least been obvious, if not implicit, that the receiver stations in the Thonnart networks were to have been controlled by a programmable "computer" which comprised "message detector" (26);
- 2) That the audio, video, text and data components of the Thonnart multimedia presentations all obviously comprised component identification data/messages which would have been required for receiver stations to have identified the receipt of the next component of the multimedia presentation that was to be displayed and/or received [note: lines 49-56 of column 1; lines 27- 33 and 61-63 of column 2; lines 42-44 of column 3; etc,...] <sup>97</sup>.

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<sup>97</sup> The examiner maintains that segment/component/fragment identifiers were an inherent part of any/all interactive display systems whose receiver stations functioned to identify and select a desired subset of presentation segments/components/fragments from a larger pool of transmitted presentation segments/components/fragments in order to independently create the respective sequence of the segments/components/fragments that represented the version of the presentation that has been tailored/specified by the respective user (via user inputs, responses, and/or requested). For example:

a) One of the transmitted segments/components/fragments might have represented a happy ending to a given movie presentation whereas another of the transmitted segments/components/fragments might have represented a sad ending to the same movie presentation. In any event, some sort of segment/component/fragment identifiers were needed in order to have enabled each receiver station to have determined when where the desired one of the plurality of selectable segments/components/fragments (the happy ending or the sad ending) was being transmitted so that it could be detected and selected for display as part of the user specified presentation: i.e. hence, the "identification messages" that were described in Thonnart.

3) The examiner takes Official Notice that encryption was well known aspect of the video and teletext distribution arts. Whether or not encryption was applied to a given video/teletext transmission was determined purely on the need/desire to prevent interception/"piracy" of the video/teletext information being transmitted. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the interactive service disclosed by Thonnart as a premium service thereby providing the desire/motivation for applying encryption to its video and teletext components; i.e. most interactive TV systems/services were provided on a "premium" service basis due to the high cost and large overhead that is required by the service provider in order to implement them (i.e. obviously, a service provider could/would only have paid the high cost of implementing such interactive services if the service provider could pass the cost of such systems, and then some, onto the users/subscribers).

4) It is clear that the audio, video, and text components of a given presentation in Thonnart had to have been displayed simultaneously and/or sequentially; i.e. there is simply no other choice/possibility. Actually determining whether the audio, video, and text components of a given presentation in Thonnart were to have been displayed simultaneously and/or sequentially was clearly a matter that was left up to the systems "programming" and therefor the choice between these necessary alternatives represented nothing more than an obvious choice of design.



44. Claims 75-79, 84-88, and 93-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thonnart [US Patent #4,413,281] for the same reasons that were set forth above for claims 57-74, and 89-91 above.

45. Claims 56-79, 84-91, and 93-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thonnart [US Patent #4,413,281] and Patfield [GB 2,167,917] <sup>98</sup>.

1) Thonnart disclosed a system as has been addressed in the preceding paragraph of this Office action. In the Thonnart, the “logic sequence”/“program” (i.e. software) that was downloaded to, stored in, and executed by each of the receiver stations controlled the successive reproduction/outputting of the components which made up the respective requested multimedia presentation; wherein said multimedia components received comprised audio components, received video components, and locally generated teletext image components which were derived from teletext transmissions.

2) Patfield has been cited because it disclosed a computer controlled playback device as is shown in figure 2. In Patfield, not only did “computer software” (@ 15) from the playback/server device (16) control the successive reproduction/outputting of the components which made up the respective desired multimedia presentation by programming computer 17 to control switch 18 to output either received video/audio components or locally produced video/audio

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<sup>98</sup> This rejection has been provided in hope of advancing prosecution by showing that the rejected claims would not be allowable even if they were somehow amended to avoid “locally generated” teletext-type images.

components, but said received "computer software" directly controlled the generation and/or the outputting of the locally produce video/audio components by/from computer 17 too [note: the abstract on the cover page; claim 1; and claim 4].

3) The examiner maintains that one of ordinary skill in the art would have recognized the fact that Thonnart and Patfield represent analogous arts in spite of the fact that the playback/server devices in the respective systems was located at different sites. Specifically, in Thonnart the playback/server device was located at a remote transmitter station whereby user/viewer requests had to be communicated back to the transmitter station in order to select the multimedia presentation which was to be reproduced whereas, in Patfield, the playback/server device was situated locally such that presentation selection was made, presumably, by manually exchanging the recording medium that was loaded in the playback/server device.

3) Given the above, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have either:

A) Modified the downloaded "logic sequences" described in Thonnart, in accordance with the teachings of Patfield, so as to have directly controlled the generation and/or the outputting of locally produce video/audio components at "message detector" (26); i.e. wherein such a modification would have enabled the multimedia presentations of Thonnart to have been produced from received audio components, received video components, locally generated teletext images, and software produced/generated image

components; or

B) Used the serving system shown in figure 5 of Thonnart to "serve" interactive multimedia presentations of the type which were described in Patfield.

46. Claim 179 is rejected under 35 U.S.C. 103(a) as being unpatentable over COX et al. [US Patent #4,388,639] in view of the article "An Integrated Teletext and Viewdata Receiver" by Isam et al. and the article "Teletext and Viewdata-a comprehensive component solution" by Beakhurst et al.

I. Preface:

1) The examiner takes Official Notice that it was notoriously well known in the Teletext display art for Teletext receivers to have included a "mixed" display mode of operation in which locally generated Teletext image data was inlaid/overlaid into/onto a displayed picture signal of a TV broadcast [e.g. note figure 18 of Beakhurst et al.]. The examiner maintains that claim 179, as currently drafted, is broad enough to read on such conventional Teletext receivers operating in said "mixed" display mode when the displayed TV picture happens to represent "full-screen graphics images" such as an animated children's cartoon. Specifically, it is the examiner's position that:

1) It was notoriously well known in the art for teletext decoder/receiver systems to have included "mixed" display mode wherein the active

character/graphic portions of the teletext images were overlaid (i.e. "inlaid") on a simultaneously displayed TV signal/programming broadcast;

2) One of ordinary skill in the art would have at least recognized the obviousness of having used such conventional teletext decoders/receivers, in the "mixed" display mode, during the receipt and display of any normal TV programming broadcast that was typically received at that time; e.g. wherein this conventional TV program reception obviously included TV signals/programming comprised of "full-screen graphics images" (i.e. such as the notoriously well known children's "cartoon"); and

3) This obvious use/application of a conventional teletext decoder/receiver to inlay/overlay character/graphic teletext images into/onto conventional "full-screen graphics TV images" in fact meets all of the limitations of claim 179.

Evidence supporting the examiner's position will be cited and addressed in the following discussion.

## II. Conventional teletext decoder and display systems and their conventional "mixed" display mode of operation:

Cox et al. has been cited for its illustration of a teletext display system [note figure 1]. As shown, the teletext display system disclosed by Cox et al. decoder/receiver

systems comprised:

1) a tuner (12) for receiving a selected TV transmission which was broadcasted from the transmitter of a remote TV broadcast/transmitter station, wherein the selected TV transmission comprised:

A) conventional TV programming which included a video component and an audio component in which the video component, for reasons explained in the "Preface" to this rejection, was obviously inclusive of series of "full-screen video graphics images" (e.g. children's cartoons); and

B) an embedded teletext data component comprised of discrete teletext data packets which were themselves comprised of further discrete packet signal components (e.g. discrete page number signal components, discrete header and address signal components, discrete encoded character and graphic symbol signal components, discrete control and display attribute signal components, etc,...);

2) Circuitry (14, 18, 22, 26) for passing the video component, e.g. the series of "full-screen video graphics images", to a video monitor (24) for display over the entire screen thereof;

3) A conventional color "teletext decoder" which, obviously because it was notoriously well known in the art, is only represented as a block (i.e. "20" of figure 1). However, as evidenced via the showing of Isam et al.

(note see figure 2) and/or Beakhurst et al. (note figures 6-9), it is maintained that such decoder structure inherently (or at least obviously) comprised the following elements<sup>99</sup>:

A) some sort of a page selection device for allowing a user to input a page selection "*control signal*" that identifies a desired teletext page that is to be received and displayed by the system;

B) some sort of data selection circuitry for separating and *detecting* at least those discrete character and graphic signal portions of discrete teletext data packet signals which belong to the desired teletext page, e.g. based on the inputted "*control signal*", whereby these discrete character and graphic signal portions are then *passed* to at least one data processor further processing thereof;

C) some sort of (i.e. at least one) teletext data processor for *organizing* and storing the character and/or graphics code *information* that is contained within the passed discrete character and graphic signal portions in accordance with discrete row address *information* found within a second discrete signal portion of the

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<sup>99</sup> The examiner maintains that the subsequently listed decoder components represents the bare minimum structure that must have been contained within a "color" teletext decoder described in Cox et al.. Specifically, the examiner maintains that Isam et al. and Beakhurst et al. only serve to provide details as to the structure of the color teletext decoder (20) in Cox et al.; a decoder which operated to process a demodulated TV signal containing embedded teletext data so as to locally generate color teletext image data R, G, and B along with a monochrome image signal Y that acted as the required "keying" signal in the "mixed mode" operation of the Cox et al. System (i.e. namely, the structure that comprised teletext decoder (20) in Cox et al. was not described by Cox et al. because such structure was notoriously well known in the art as is evidenced via the showings of Isam et al. and Beakhurst et al.).

discrete teletext data packet signals wherein this processing is based (at least indirectly <sup>100</sup>) on the user entered "*control signal*";

D) some sort of character/graphics generating circuitry for responding to the organized character and graphics information that is retrieved from storage, as character and graphics symbol display *instructions*, so as to generate:

1. The illustrated color teletext pixel data signals ( "R", "G", "B") representing a second complete full-screen video character/graphics image; and

2. The illustrated monochrome pixel data signal ("Y" ) representing the foreground and background regions of the second complete full-screen video character/graphics image;

- 4) a switch means (22) which, in response to the monochrome pixel data signal ("Y" ), only passes the foreground portion of the second complete full-screen video character/graphic image to the monitor (24) when in the mixed mode of operation; and

- 5) said monitor (24) for displaying the video component of the received TV

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<sup>100</sup> The user entered page selection *control signal* determines all information that is passed for processing and therefor serves as "a basis" for all processing.

programming overlaid with the foreground component of the second complete full-screen video character/graphic image as a full screen video graphic presentation; i.e. at least on those occasions when the video component of the TV programming comprised full-screen graphics data (e.g. when the received TV programming was a cartoon).

[NOTE: lines 29-56 of column 1 and lines 10-55 of column 3 in Cox et al.] <sup>101</sup>

47. Claims 180-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over COX et al. [US Patent #4,388,639] in view of the article "An Integrated Teletext and Viewdata Receiver" by Isam et al. and the article "Teletext and Viewdata-a comprehensive component solution" by Beakhurst et al., for the same reasons that were set forth for claim 179 above.

48. Claims 167-170 are rejected under 35 U.S.C. 103(a) as being unpatentable over COX et al. [US Patent #4,388,639] in view of the article "An Integrated Teletext and Viewdata Receiver" by Isam et al. and the article "Teletext and Viewdata-a comprehensive component solution" by Beakhurst et al., for the same reasons that were set forth for claim 179 above.

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<sup>101</sup> Again, Beakhurst et al. has been cited applied for the purpose of:  
1) illustrating the structure that was needed and conventionally used in order to have implemented the teletext decoder "block" (20) in Cox et al. (see: figure 9; and the discussion within the paragraph that begins in the first column on page 1381 and extends to the second column of page 1381); and

2) illustrating, via a photograph, exactly what the "mixed" display mode of such a teletext receiver looked like when displayed on a standard TV monitor (see figure 18)



The examiner maintains that the bytes of teletext data contained within the teletext data packets of Cox et al. represents some type of "downloadable code"; especially in light of the broad definition that applicant has attempted to apply to this "downloadable code" terminology in order to create section 112-1 support for its current use back to the 1981 disclosure.

49. Claims 175-179 are rejected under 35 U.S.C. 103(a) as being unpatentable over COX et al. [US Patent #4,388,639] in view of the article "An Integrated Teletext and Viewdata Receiver" by Isam et al. and the article "Teletext and Viewdata-a comprehensive component solution" by Beakhurst et al., for the same reasons that were set forth for claim 179 above. The following is noted:

The examiner maintains that the remote TV broadcast station that inherently existed in the system disclosed by Cox et al. obviously (if not inherently) comprised:

- 1) insertion circuitry for receiving the TV signal to be broadcast and the teletext data stream to be broadcast and for inserting the received teletext data stream into the received TV signal to create the required combined signal transmission; and
- 2) a transmitter for transmitting the combined signal transmission to the receiver station of figure 1 of Cox et al. <sup>102</sup>

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<sup>102</sup> These are transmitter side components that are simply found within any all conventional teletext broadcast system [e.g. note the figure at the top of page 39 in the article "The television as a receive only terminal" by McArthur in the 3/1977 publication of Systems International (vol.5, no. 2, pages 38-39) for an illustration thereof]

50. Claims 162-166 and 171-174 are rejected under 35 U.S.C. 103(a) as being unpatentable over COX et al. [US Patent #4,388,639] in view of the article "An Integrated Teletext and Viewdata Receiver" by Isam et al. and the article "Teletext and Viewdata-a comprehensive component solution" by Beakhurst et al., for the same reasons that were set forth for claims 175-179 above, further in view of Betts [GB 1,556,366]. The following is noted:

Betts evidences the fact that those of ordinary skill in the art had recognized the desire and advantages of having have implemented teletext decoders using a software driven CPU in place of dedicated logic circuitry [note lines 50-55 and 70-73 of page 1]. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the teletext decoder in Cox et al with a software driven CPU, of the type described in Betts, given the recognized advantages of such a software driven teletext decoder implementation.

51. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. [US Patent #4,536,791].

The examiner notes that Campbell et al. disclosed a CATV distribution system which, at the headend, preferably operated to scramble "ALL" of the TV programming being broadcast/cablecast from said headend via the available downstream TV channels (note lines 10-16 of column 12). The disclosed a CATV distribution system then provided several different methods for allowing authorized access to the TV programming by the CATV receivers being serviced by the

headend [note lines 66-68 of column 11]. One of the ways in which access was described as having been authorized was as follows:

1) First, an order requesting *authorization*, for enabling the receipt/display of a video, audio, and/or text content of a scheduled TV program, was originated from at least one "interactive" subscriber station/"apparatus" and is communicated to the headend/"data source" via some type of "return link"(i.e. such as by a telephone);

[note: lines 26-34 of column 12; and lines 21-34 of column 17]

2) Next, when authorization was to be granted, an enabling data/word was downloaded to the at least one requesting "interactive" subscriber station/"apparatus" to serve as a basis for displaying the video, audio, and/or text content of said scheduled TV program; i.e. when the data/word was appropriately processed;

[note: lines 26-34 of column 12; lines 25-33 of column 13; lines 1-8 of column 14; and lines 21-34 of column 17]; and

3) Finally, descrambling and presenting the authorized video, audio, and/or text content as a result of the authorization which was obtained through the processing of the downloaded enabling data/word.

[note lines 48-59 of column 16 and lines 21-34 of column 17]

While not explicitly stated in Campbell et al., it is maintained that the

authorized/displayed text content that was associated with the authorized video content of the TV program, that was explicitly described in Campbell et al., obviously constituted a "locally generated image"; i.e. such being self-evident by the fact that the textual image content that was produced within the interactive subscriber station/apparatus of Campbell et al. was produced via a conventional character/graphics generator (i.e. 118 of figure 6) <sup>103</sup>. Stated another way, the transmitted teletext data in Campbell et al., as with *typical* teletext data, obviously represented a sequence of instructions for directing the character generator (118) of the subscriber station/apparatus to "locally generate" the text/graphics which was to have complemented the video portion of the requested/authorized TV program.

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*For the record, the examiner notes the following:*

*1) As best understood, applicant's original disclosure did not describe/disclose an interactive (i.e. two-way) apparatus for providing requested information "on-demand" as now, at first glance, appears to be claimed by applicant. At best, applicant's original disclosure only appears to have disclosed/described an quasi-interactive (one-way) apparatus in which authorization, e.g. in the form of a decryption key, was obtained via requests made to a remote location/station. What was actually described/disclosed by applicant was clearly analogous to the*

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<sup>103</sup> e.g. an issue that has already been addressed in great detail via part "I)" of "SECTION II" of this Office action.

authorization which was provided in the system that was disclosed by

Campbell et al.:

2) In rejecting the claim, the examiner relied on the text content of the authorized TV programming for meeting the "locally generated image" recitation of the claim. However, the examiner notes that he could have relied on other "locally generated images" described in Campbell et al. for this showing [i.e. note the described "channel number" in lines 34-42 of column 9].

52. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known "hybrid Videotext"<sup>104</sup> broadcast system structure as exemplified via the showing of Oono et al. [JP 55-028691].

#### I. Preface to the Rejection:

The examiner takes *Official Notice* that "teletext" data typically<sup>105</sup> comprised coded control/character/graphic data which embedded within, and transmitted

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<sup>104</sup> The term "Videotext" is a generic term which refers to both "Viewdata" and "Teletext" type data services. "Viewdata" refers to a two-way data service in which a modified TV terminal exchanges requests and data with a remote data service provider via conventional phone lines. "Teletext" to a one-way data service in which a modified TV terminal selects and displays portions of a data base that has been cyclically transmitted to the modified TV terminal, from the service provider, via existing TV broadcast networks (i.e. a "quasi-interactive" system). "Hybrid video text" systems attempted to capture the best of "Videotext" and the best of "Teletext". Namely, these hybrid systems allowed a user's requests to be submitted from a modified TV terminal to the data provider via phone lines (as in case of Viewdata) and allowed the requested data to be delivered from the provider to the modified TV terminal via a TV distribution network (i.e. as in case Teletext). These hybrid systems were, for all intents and purposes, simply teletext systems that had been modified with a return "request" link so as to make the teletext system fully interactive; i.e. teletext systems which had been modified to incorporate the best feature, e.g. the two-way nature, of Viewdata.

<sup>105</sup> The examiner acknowledges that in very rare circumstances, e.g. when transmitting thousands of different Chinese characters, teletext data was known to have comprised displayable pixel data. This, however, is the rare exception and does not apply to the present rejection.

during, the VBI of conventional television programming/signals. This coded control/character/graphic data represented series of instructions for instructing the teletext decoder as to how to generate desired teletext images for display.

Specifically, coded teletext data did not comprise displayable pixel/image data. Rather it comprised sequences of control/character/graphic codes/"instructions" which, when processed by a teletext decoder, identified how and where ones of a plurality of locally stored pixel patterns were to be assembled and displayed in order to locally produce/generate the desired image/display. Namely, each sequence of the transmitted teletext control/character/graphics codes identified how ones of the locally stored pixel patterns were to have been retrieved from memory and assembled, e.g. via a character generator, to generate the desired displayable image at the receiver. <sup>106</sup>

In light of the preceding discussion/showing, it is clear that any image generated from a series and or sequence of received teletext control/character/graphic codes/"instructions" falls within a fair reading of the "locally generated image" terminology.

[see part "1)" of "SECTION II" of this Office action too]

## II. The showing of Oono et al.:

Oono et al. has been cited because it evidences the structure of a conventional

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<sup>106</sup> SEE: the description of "Teletext" as was set forth in the last 16 lines on page 5 of the appendix that was attached to the "PETITION FOR RULEMAKING" that was filed with the FCC on 3/26/1981 by the "United Kingdom Teletext Industry Group".

interactive subscriber station/terminal which was implemented within a two-way *hybrid* teletext distribution system [note figure 3]. The interactive terminal/receiver station included the following:

1) a keyboard (9 of figure 3) which included various operating keys (see figure 4) wherein:

a) one of the keys (i.e. key 11) was used for establishing a telephone connection (i.e. via interface 10 of figure 3)

between the terminal/receiver station and the remote "station" of the teletext service provider; and

b) a plurality of the keys (i.e. @ 18 of figure 4) which were used for inputting the subscriber's coded requests for desired teletext information; wherein these inputted requests were then transmitted to a teletext provider's remote station location via the established telephone connection;

2) receiving circuitry (i.e. RF converter 1 of figure 3) for receiving transmitted TV programming signals (i.e. "A" of figure 1) that were transmitted from a remote TV broadcast station; wherein these received TV programming signals contained embedded teletext data (i.e. "B" of figure 1) that was composed of data packets (i.e. figure 2) representing the teletext information that had been requested by the subscriber (the teletext data being embedded, at the TV broadcast station, within the VBI of the TV programming signals);

3) data separating and decoding circuitry (i.e. 2 and 3 of figure 3)

for extracting and decoding the data representing the requested teletext information wherein this circuitry identifies the receipt/location of its requested information within the teletext data stream by comparing a locally stored terminal specific address to terminal specific address data (i.e. "D" of figure 2) that was contained within each of the embedded data packet [note lines 8-11 on page 8 of the translation];

4) data processing, storage, and outputting circuitry (i.e. 3-7 of figure 3) for processing the decoded data corresponding to the requested information wherein the decoded data can comprise any one of the following:

A) "software data" for controlling the operation of the microcomputer (3 of figure 3) [note lines 8-14 on page 8 of the translation],

B) "Superimposed data" to be superimposed over a displayed video portion of the broadcasted TV programming signals [note lines 8-21 on page 8 of the translation], and

C) "Picture data" representing displayable teletext pages which were to be displayed alone (i.e. which were not to be superimposed over received TV programming signals as in the case of the "superimposed data") [note lines 8-26 on page 8 of the translation].



### III. Obviousness:

It would have at least been obvious to those of ordinary skill in the art, if not inherent, for the "superimpose data" described in Qono et al. to have comprised *typical* teletext data representing series of coded instructions [note part "I" above]:

1) wherein the conventional terminal/receiver station structure described by Qono et al. explicitly operated to output a *combined video presentation*<sup>107</sup> by superimposing *locally generated* teletext images over the video portion of the broadcasted TV programming;

2) wherein the locally generated teletext images were explicitly generated from the received "superimposed data" that had been transmitted from the teletext provider's remote station location via a TV broadcast network (i.e. indicating the presence of an intermediate television broadcast station); and

3) Wherein the locally generated teletext images were explicitly generated based on the subscriber's inputted requests for desired information that were communicated from the receiver/terminal station, to the provider's station, via the established telephone

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<sup>107</sup> The examiner maintains that a *combined presentation* is produced by the receiver/terminal whether or not the superimposed Videotext information is related to the broadcasted video signal [i.e. as currently drafted, the claim fails to positively recite/require any type of relationship between the displayed data and signal]. However, it is noted that even if such a relationship had been recited, providing program related Videotext which completes or supplements the video over which it was overlaid was in fact notoriously well known in the art as evidenced by the article "Teletext Systems: Considering the Prospective User" by Ciciora [note the discussion under the heading "Supplementary Overlays" on page 8-48].

connection.

The examiner maintains that the operation a two-way *hybrid* teletext system, as described in Oono et al., obviously met all of the limitations of claim 56 in that: 1) a user inputted a request for "superimposed data" via his interactive terminal device; 2) the inputted request was then transmitted from his terminal device to a remote data source via a phone line; 3) the remote data source then transmitted the requested "superimposed data" to the user's terminal in the form of teletext data embedded in the VBI of distributed TV programming; 4) the interactive terminal device then received the requested "superimposed data" and processed it in order to produce a "locally generated" image; and 5) the interactive terminal device then "superimposed" the locally generated image over TV programming received from a remote video/TV signal source (the "superimposed data" thereby inherently serving some basis, e.g. "a basis", for the combined/"superimposed" video presentation).

53. Claims 57-74 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known hybrid Videotext broadcast system structure as exemplified via the showing of Oono et al. [JP 55-028691] for the same reasons that were set forth above for claim 56 above.

54. Claims 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known "*hybrid Videotext*"<sup>108</sup> broadcast system structure as Oono et al. [JP 55-028691], in view of the publication "A Public Broadcaster's View of Teletext in the United States" by Gunn et al.

**I. Preface to the Rejection:**

As addressed above, the examiner maintains that the limitations of claim 56 are broad enough to be met by Oono et al., taken alone. Specifically, there is nothing in claim 56 which prohibits the recited "data" from being read on requested teletext data which, itself, represents a series of instructions for controlling a terminal/receiver to locally generate images which represent the requested information (i.e. the transmitted teletext data thereby serving as "a basis" for the image's presentation). However, even if applicant were to narrow claim 56 in order to distinguish the recited "data" from the "locally generated" images, such would not be enough to overcome this applied prior art for the reasons that are now set forth in this paragraph.

**II. The showing of Oono et al.:**

SEE the discussion of Oono et al. that was set forth in the two immediately

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<sup>108</sup> The term "Videotext" is a generic term which refers to both "Viewdata" and "Teletext" type data services. "Viewdata" refers to a two-way data service in which a modified TV terminal exchanges requests and data with a remote data service provider via conventional phone lines. "Teletext" to a one-way data service in which a modified TV terminal selects and displays portions of a data base that has been cyclically transmitted to the modified TV terminal, from the service provider, via existing TV broadcast networks (i.e. a "quasi-interactive" system). "*Hybrid video text*" systems attempt to combines the best of "Videotext" and the best of "Teletext". Namely, these hybrid systems allow user requests to be submitted from the modified TV terminal to the data provider via phone lines (as in Viewdata) and allow the requested data to be delivered from the provider to the modified TV terminal via a TV distribution network (i.e. as in Teletext). These hybrid systems are, for all intents and purposes, simply teletext systems which have been modified with a return "request" link so as to make the teletext system fully interactive; i.e. teletext systems which have been modified to incorporate the best feature, e.g. the two-way nature, of Viewdata.

preceding paragraphs of this Office action. The examiner further notes the following:

a) As noted previously, Oono et al. disclosed an interactive Videotext terminal which was capable of requesting, receiving, and processing teletext information provided from a remote teletext service provider. Oono et al. explicitly described "software", i.e. *Telesoftware*<sup>109</sup>, as having been one form of teletext information which could be requested, received and processed by the and received by their interactive receiver/terminal; i.e. wherein, upon receipt, the requested "software"/*Telesoftware* was loaded into a CPU (3) of the interactive receiver/terminal for immediate or delayed execution by said CPU. Specifically, in Oono et al., requested "software" was downloaded to the receivers/terminals within a teletext data stream, e.g. *Telesoftware* by definition, and the downloaded software was used to program a programmable CPU to perform "various services" (e.g. various "video games").

### III. Differences:

Claim 56 "*differs*" from the showing of Oono et al. (i.e. as set forth in parts I and II of this paragraph), only in that the requested software/"data" in Oono et al. was

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<sup>109</sup> The examiner notes that "Telesoftware" was a term which had been coined in order to refer to "computer software programming" which was downloaded in the form of teletext data (i.e. data embedded in the vertical blanking interval of distributed TV programming). The "software" described by Oono et al. clearly falls within the definition/scope of this terminology.

not described as having served as a basis for a video presentation that comprised both locally generated images and images from a remote video source; i.e. the only thing that one would have known for certain was that the "video games" described by Oono et al. displayed locally generated images.

#### IV. The state of the art:

Oono et al itself evidences the fact that it was notoriously well known in the art to have used downloadable software/Telesoftware as the vehicle for downloading video game computer programs/applications to programmable TV receivers/terminals for execution thereon. The examiner takes Official Notice that it was also notoriously well known in the art to have used this same downloadable software/Telesoftware feature in order to have downloaded other "*program-related*" computer applications/programs <sup>110</sup> to said programmable TV receivers/terminals for execution thereon; i.e. such being exemplified via the showing of Gunn et al. [note the "WALL STREET WEEK" embodiment/application that was described in the first 18 lines on the fifth page of the article].

#### IV. Obviousness:

The examiner maintains that it would have been obvious to one of ordinary skill to

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<sup>110</sup> "Software applications" which was to be run during the receipt and viewing of an associated TV program so as to produce an information content that was related to the content of the TV programming thereby enhancing supplementing the TV show.

have used the programmable receiver disclosed by Oono et al. to have downloaded and executed *other* well known software/*Telesoftware* program applications <sup>111</sup> pertaining to *other* well know computer applications/programs (i.e. in addition to the video game programs/applications that were already explicitly described in Oono et al.). Specifically, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have used the software/*Telesoftware* handling capability of the Oono et al. system to download, execute, and present/display conventional “*program-related*” computer applications/software of the type described in Gunn et al.; i.e. wherein, the subscriber would now have requested, received, and run downloaded computer software/*Telesoftware* for deriving and displaying computer generated “*program-related*” information (i.e. images) to supplement the related TV programming that is being presented <sup>112</sup>.

55. Claims 57-74 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known “*hybrid Videotext*” broadcast system structure as exemplified by Oono et al. [JP 55-028691], in view of the publication “A Public Broadcaster’s View of Teletext in the United States” by Gunn et al., for the same reasons that were set forth for claim 56 above.

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<sup>111</sup> i.e. in addition to the well known game application explicitly described in Oono et al.

<sup>112</sup> e.g. an “*interactively created, program related, overlay*”.

56. Claims 75-88 and 92-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known "*hybrid Videotext*" broadcast system structure as exemplified by Oono et al. [JP 55-028691], in view of the publication "A Public Broadcaster's View of Teletext in the United States" by Gunn et al., for the same reasons that were set forth for claims 56-74, and 89-91 above.

57. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known teletext broadcast system structure which is illustrated in the showing of Hutt et al. [US Patent #3,961,137].

I. Preface to the Rejection:

1) For reasons which have already been addressed above, an image generated from received teletext character/graphic codes clearly falls within a fair reading of the recited terminology: "*locally generated image*".

2) The examiner notes that, as currently recited in claim 56, the "request" which is "communicated" to the "remote data source" does not necessarily comprise a request which is originated from the "interactive video apparatus" such as the recited "first request", but instead may comprise some unspecified "second request" that is provided from some unspecified origin for some unspecified purpose.

3) The examiner also notes that conventional teletext decoders found within conventional **one-way** teletext distribution systems are sometimes considered to be *quasi-interactive* or *pseudo-interactive* devices in that they function to locally filter out and display selected teletext data from a cyclically transmitted database based on requests inputted by a user; i.e. the term “*interactive*” itself has often been reserved for **two-way** data distribution systems in which a data server/source only transmit that portion of its database for which it has received requests from the user(s). For 112-1 reasons addressed above, it is unclear to the examiner as to how applicant has used/defined/supported the use of the term “interactive” in the pending claim; i.e. it is unclear whether the term “interactive” is intended to be limited only to **two-way** distribution systems or if it is intended to include *quasi-interactive one-way* distributions such as conventional one-way teletext systems? Thus, for the purpose of the current rejection, the “interactive” terminology has been interpreted as having either meaning.

## II. Teletext Transmission Systems as Exemplified in Hutt et al.:

Hutt et al. has been cited because it exemplifies a conventional *quasi-interactive* teletext decoding apparatus which included circuitry for receiving and processing teletext header and control “data” which was transmitted to said apparatus, along with associated teletext



character/graphics codes, by a remote teletext "data source". As is evidenced by figure 4, the decoding apparatus comprised:

1) a video output device (11) for displaying a video presentation which is comprised of: an image received from a remote video source (i.e. the displayed "VIDEO" image); and a *locally generated image* (i.e. the displayed "TEXT" image); <sup>113</sup>

2) a "DISPLAY SELECTOR" of figure 4 for "originating" at least a "first request" to enable the display of transmitted teletext data having a content desired/selected by a user;

3) a "TEXT SIGNAL GENERATOR" of figure 4 for "receiving" and "processing" said teletext header and control "data" wherein said header and control data "served as a basis for displaying said video presentation"; i.e. such teletext header and control data inherently selecting which teletext character/graphics codes were selectively displayed (e.g. via page numbers), inherently determined display attributes of the character/graphic codes (e.g. such as color, underlining, etc,...), etc,...; and

4) Circuitry including the "TEXT SIGNAL GENERATOR", a "TEXT ADDER", a "VIDEO SWITCH"(3), and the output device (11) of figure 4 for processing the teletext header and control

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<sup>113</sup> The examiner maintains that an image that is generated from received teletext character/graphics codes inherently comprises a "locally generated image" for the reasons which were set forth in part "1)" of section "I." of this paragraph. It is further noted that the examiner's position is clearly supported by block labeled "DISPLAY GENERATOR" in figure 6 and that portion of the written description that is associated thereto.

“data” in order to produce a display of comprising said locally generated teletext image “in conjunction” with the video image from the remote video source [i.e. such as the production and display of the “VIDEO AND SUPERIMPOSED TEXT” signal that is input to video switch (3)].

In summary, it is maintained that Hutt et al. evidences the fact that is it was conventional for teletext broadcast systems to have comprised all of the following:

- 1) a TV transmitter for receiving and transmitting TV programming;
- 2) a data source for providing a stream of teletext data to the TV transmitter wherein the stream of teletext data includes character/graphic codes and associated header and control data;
- 3) circuitry, located within the transmitter for inserting the provided stream of teletext data into the VBI of the received TV programming prior to the transmission of said programming by said transmitter; 4) quasi-interactive teletext receiving and display apparatus which:
  - a) received the transmitted TV programming;

B) separated the inserted teletext data stream from the TV programming;

C) extracted desired ones of the character/graphic codes from the separated data stream in response to, and based on, both requests inputted by the user and the received header/control codes which are contained in the transmitted/separated teletext data stream;

D) locally generated a displayable image from the extracted character/graphic codes; and

E) selectively combined the locally generated image with the image from the TV received programming for simultaneous or sequential display on a display device.

### III. Differences:

The examiner notes that claim 56 differs from the conventional teletext broadcast systems exemplified by Hutt et al. only in that claim 56 requires some unspecified "second request" to be provided to the "remote data source" from some unspecified origin and for some unspecified purpose.

### IV. Obviousness:

The examiner notes that it was notoriously well known in the art for teletext data sources of teletext broadcast systems to have received various types of "requests". For example, as is evidenced the "DATA REQUEST TRANSMITTER" block figure 3 of Hutt et al., it was conventional for the insertion circuitry of the TV transmitter to have provided "requests" for data to be provided from the data source the teletext data source so as to be synchronized with the VBI of the transmitted TV programming. The examiner maintains that one skilled in the art would have obviously understood that any one of these known types of "received requests" fall within the scope of the *unspecified* "second request" limitation that is currently recited in claim 56.

58. Claims 57-59, 64-66, and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known teletext broadcast system structure which is illustrated in the showing of Hutt et al. [US Patent #3,961,137] in view of Betts [GB 1,556,366].

**I. Conventional Teletext Distribution Systems as Exemplified in Hutt et al.:**

- 1) See the preceding paragraph of this Office action for a detailed explanation.
- 2) Claims 57-59 and 64-66 *further differ* from the conventional teletext decoding system structure exemplified by Hutt et al. in that these claims required the claimed "interactive video apparatus", i.e. corresponding to

the teletext decoding and display apparatus of Hutt et al., to have been implemented with a programmable computer which functioned to detect, store, and pass at least one processor instruction to a processor.

## II. The showing of Betts:

Betts evidences that implementing a conventional teletext decoding apparatus with a programmable CPU was known to have been advantageous for the following reasons:

- 1) the CPU could be programmed via software to perform many/most of the processing functions required of a teletext decoder thereby simplifying the decoder structure by eliminating the use of various blocks of dedicated circuitry [see lines 46-54 on page 1]; and
- 2) the software used to program the CPU could be changed/altered so as to change or alter the decoder's functions [note: lines 70-73 of page 1; and lines 62-65 of page 3].

It is noted that the CPU of Betts was inherently programmed so as to detect, store, and pass processor instructions, e.g. such as the illustrated "COLOUR", "FLASH", "BOX" instructions, to at least one processor (20) wherein said processor operates to "organizes" the "discrete" display

information into a desired display format according to the "discrete" instruction information. It is further noted that the "BOX" instruction evidences the fact that the decoder disclosed by Betts operated in a notoriously well known "box" mode which cause the locally generated image to be displayed, within a "boxed" area, over a portion of the displayed TV images.

### III. Obviousness:

It would have been obvious to have modified conventional teletext decoding circuitry of the type exemplified in Hutt et al. by replacing its "hardware" implemented decoder structure with the CPU driven configuration described in Betts in view of the clear advantages which were obtained through such a modification as explicitly set forth in Betts; i.e. Betts itself provided the motivation for making this modification.

59. **Claims 67-72 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known teletext broadcast system structure which is illustrated in the showing of Hutt et al. [US Patent #3,961,137] in view of Betts [GB 1,556,366] for the same reasons which were set forth for claims 57-59 and 64-66 above.**

For the purpose of this rejection, the examiner notes that the recited

"computer" of these claims is at least met by the operation elements 13, 15, 16, and 18-20, shown in figure 1 of Betts, of the modified Hutt et al. structure.

60. Claim 73 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known teletext broadcast system structure which is illustrated in the showing of Hutt et al. [US Patent #3,961,137] in view of Betts [GB 1,556,366].

1) The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the teletext decoder in the conventional system described by Hutt et al. with the programmable CPU configured decoder described by Betts for the reasons which were set forth in detail in the preceding paragraph of this Office action [i.e. for the reasons set forth above for claims 67-72 ].

2) Claim 73 differs from the modified system of Hutt et al. only in that claim 73 indicates that the video from the remote video source comprises "encrypted video".

3) The examiner maintains that it was notoriously well known in the television broadcast arts to have encrypted the video portion of transmitted television programming to prevent unauthorized use of the transmitted TV programming thereby providing, for example, a pay-per-view capability. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have encrypted the video portion of the TV programming transmitted in the modified system of Hutt et al. for the purpose of providing such well known services/capabilities.

61. Claims 60-63 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known teletext broadcast system structure which is illustrated in the showing of Hutt et al. [US Patent #3,961,137] for the same reasons that were set forth for claim 56 above.

In addition to that already addressed for claim 56, the following is noted:

1) With respect to claim 60-62: It is noted that the teletext decoding apparatus described in Hutt et al. processed teletext page "identifiers" which were contained in the received teletext data stream in order to locate the character/graphics codes which represent the "locally generated image".

2) With respect to claim 63: It is noted that the teletext decoding apparatus described in Hutt et al. communicated with the teletext data source via a one-way teletext data channel which was, by definition, a "digital information channel".

62. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. [US Patent #4,623,920] in view of Campbell et al. [US Patent #4,536,791].

**I. Alleged Priority:**

Applicant continues to allege that pending claim 75 finds support in, and is thus entitled to the priority of, his 1981 disclosure. The examiner rejects this allegation



noting that the recited “downloadable processor instruction” terminology was not supported by the 1981 [see the section 112 issues set forth in this Office action for a detailed explanation of this issue]. Clearly, the claimed feature of providing the recited “downloadable processor instruction” that is disclosed in the 1987 disclosure is not subject matter that was “common” to applicant’s 1981 disclosure; i.e. the 1981 disclosure only transmits *cue* signals which causes processor instructions (i.e. software) to be executed but does not *download* the processor instructions (i.e. software) which is to be executed in response to said “cue” signal; i.e. the recited feature of “downloading instructions” (i.e. computer software) was an idea which originally/first/only appeared in the 1987 disclosure.<sup>114</sup>

## II. What does claim 75 recite?:

The examiner maintains that it is important to note what applicant alleges is being claimed by the recitations of 75 in order to fully appreciate how broadly applicant himself is reading the limitations of said claim. As has now been set forth on pages 23-29 of Appendix a of applicant’s response, claim 75 allegedly derives at least part of its support from the disclosed transmission of the “second series of instructions”; i.e. a series of instructions which comprised “initial signal word or words” followed by a “program instruction set” wherein the “initial signal word or words” caused the processor of a receiver station to load and run said “program instruction set”. As is now alleged by applicant, the disclosed “program

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<sup>114</sup> See “SECTION I” and “SECTION V” of this Office action too.

instruction set” supposedly provided the required support for the recited “downloadable processor instructions” of claim 75 and the “initial signal word or words” supposedly provided the required support for the recited “at least one control signal”. If one accepts applicant’s allegations, then it becomes apparent that many of the recited steps of claim 75 are in fact directed to the one and the same disclosed steps and are not really different steps as suggested in the manner in which the claim was drafted. For example, the recited step of “receiving at one of said first transmitter station and a second transmitter station said downloadable code” and the recited step of “receiving said at least one control signal at said one of said first and second transmitter stations” actually refers to the same disclosed step in which the disclosed “second series of instructions” was received; i.e. applicant seems to have taken the position that the two different steps of receiving instructions/signals was implicit in the single disclosed step of receiving the “second series of instructions” because the “second series of instructions” was described as having comprised two components which, as seems to be alleged, must have been received separately in time.

What is good for the goose is good for the gander! Specifically, the examiner maintains that a showing in the prior art of a received signal which comprised two component’s must be given the same benefit of being interpreted as having implicitly comprised separate receiving steps as claimed; i.e. assuming for a moment that applicant’s own disclosure were to be held as being “adequate” under 112-1.

### III. The showing of Dufresne et al.:

As is shown in figure 1, Dufresne et al. disclosed a television distribution system for delivering video presentations from a headend (104-107) to a plurality of subscriber/receiver stations (101-103) via a television signal distribution medium (100). While the television distribution medium was described as being coaxial cable, Dufresne et al. recognized that the medium could have comprise other known alternatives such as satellites [see lines 48-51 of column 2]. As is shown in more detail in figure 2, each of the plurality of subscriber/receiver stations in Dufresne et al. included a receiver (@ 301 and 313), a signal detector (@ 313 and 314), a processor (i.e. 324); and an output device (i.e. the receiver 102 of figure 1 which receives the output of an output terminal 310). Each of the plurality of subscriber/receiver stations in Dufresne et al. is adapted to detect the presence of at least one control signal (i.e. the "option table packets" described in lines 33-35 of column 10, the "address signals" described in lines 26-39 of column 2, etc,...) and is programmed (i.e. with the "bootstrap" program described in lines 63-68 of column 8) to process downloadable processor instructions (i.e. the *initial control signals* set forth in lines 63-68 of column 8, the "temporary software module" described in lines 36-40 of column 9, the "desired software modules" described in lines 36-43 of column 10, etc,...). The presentation that is delivered to each subscriber/receiver terminal includes: 1) first video images derived by elements 302, 304, 305, and 307 of figure 2 from standard/scrambled TV signals which were transmitted from a first remote broadcast station (i.e. from elements 104 of figure 1); and 2) second video images derived by elements 313, 314, 324, 312, and

308 from received Videotext transmissions (i.e. note lines 55-59 of column 3, lines 42 -47 of column 15, etc,...). The system disclosed by Dufresne et al. includes:

a) a step of receiving at least one transmitter station, said downloadable processor instructions (i.e. the "software modules") which are used to control all of the normal operations of each subscriber/receiver station including the outputting of TV and graphics images [see lines 56-57 of column 10, lines 12-16 of column 14, lines 3-17 of column 15, lines 26-41 of column 15, etc, ....];

B) a step of transferring said downloadable processor instructions (i.e. the "software modules") to a transmitter [see lines 18-25 of column 15];

C) a step of receiving at least one transmitter station, said at least one control signal (i.e. the "option table packets") which are effective at each of the subscriber/receiver stations to control the execution of the "desired" ones of the transmitted downloadable processor instructions (see lines 33-43 of column 10, lines 11-17 of column 15, lines 55-60 of column 15, etc,...);

D) a step of transferring said at least one control signal (i.e. the "option table packets") to a transmitter [see lines 18-25 of column 15]; and

E) a step of transmitting said at least one control signal and said downloadable processor instructions as an information transmission [see lines 34-67 of column 4].

#### IV. Differences:

As was set forth above, Dufresne et al. disclosed a TV distribution system which comprised a transmitter station: 1) receiving and broadcasting standard and scrambled TV signals over a plurality of TV channel; and 2) for receiving and transmitting control signals and downloadable processor instructions as an information transmission over a data channel. The transmitted control signals were used at each subscriber/receiver station so as to determine which of the downloadable processor instructions were loaded and executed by each subscriber/receiver station wherein said executed downloadable processor instructions determined what services could be received by each station; i.e. services which included the display of scrambled TV programming, the display of Videotext images, etc.,...

Claim 75 differs from the showing of Dufresne et al. only in that Dufresne et al. did not describe a mode of operation in which Videotext images, related to the TV programming, were overlaid over the related TV programming.

#### V. Obviousness:

Campbell et al. evidences the fact that it was known to have been desirable, in the same kind of video distribution environment as that disclosed by Dufresne et al., to have authorized the overlay of "program related" Videotext data over its related TV programming [note lines 21-34 of column 17]. In light of such a showing, the examiner maintains that it would have been obvious and well within the level of one of ordinary skill in the art to have provided the "*desired software*

*module*" which would have been needed in Dufresne et al. to have provided a service in which program related Videotext was be overlaid over related/"linked" TV programming.

63. Claims 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dufresne et al. [US Patent #4623920] in view of Campbell et al. [US Patent #4,536,791] for the same reasons which were set forth for claim 75 above.

It is noted that while Dufresne et al. transmitted the control signals and the downloadable instructions over a separate "data channel", Campbell et al. evidenced the obviousness of having used the VBI of the broadcasted TV signals for such data channel transmissions.

64. Claim 123 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known "MODE 2" type captioning as has been described in the publications "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)" and Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc. [NOTE: APPENDIX III of this Office action].

I. Preface:

a) As set forth in the preamble, claim 123 is directed to a method of delivering a video presentation from a "first remote transmitter station" to at least one of a plurality of receiver stations wherein, as set forth in lines 16-18 of claim 123, the

delivered video presentation may also, *optionally*, be passed through a remote intermediate relay stations; i.e. this remote intermediate relay station corresponds to, and allegedly provides the required support for, the recitation of the “second remote transmitter station” [note appendix A of applicant’s last response]. In other words, whenever/wherever applicant recites the “second remote transmitter station”, applicant is simply expressing the fact that the signal transmitted from the first remote transmitter station can be, but does not have to be, relayed to the receiver station(s) via an intermediate relay station. More specifically, as currently recited in claim 123, a relay station (i.e. the “second remote transmitter station”) is only an optional element and therefor does not have to be shown/met by the applied prior art in order to meet all of the required limitations of claim 123.

B) Given the above, claim 123 appears to met by a showing of a transmitter, located at a “first remote transmitter station”, for receiving and transmitting an information transmission comprised of at least one instruct signal, at least one first discrete signal, and at least one control signal [see the last four lines of the claim]:

1) wherein said at least one discrete signal (i.e. SPAM message packet) represents only a portion of “a code” or “an identifier”, and a second discrete signal (i.e. another SPAM message packet) represents another portion of the code or identifier;

2) wherein said control signal (i.e. the SPAM packet header/end codes) causes said portions from said first and second discrete signals to be organized to provide/recover said code or identifier; and

3) wherein said provided/recovered code or identifier is used to

designate a second image or a device, and is operative to cause said at least one instruct signal (i.e. cuing signal) to be effective at the at least one receiver station to locally generate and output said second image "for delivery" (i.e. to what?) in conjunction with a first received image of the presentation.

## II. "MODE 2" captioning as evidenced by the applied "prior art":

The examiner takes Official Notice that it was notoriously well known in the teletext transmission art: 1) to have generated packets of teletext data, representing program related teletext pages/images, wherein each of the packets comprised a group of character/graphics codes (i.e. the recited "discrete signals") representing a portion of a coded teletext image/page (i.e. a displayable row or partial message), and a required teletext packet header (i.e. the recited "control signals"); 2) to have embedded the generated teletext data packets into the VBI of an associated TV signal (i.e. representing a "first image") to create a combined signal; 3) to have broadcasted the combined signal from the transmitter of a first transmitter station as a TV signal transmission; 4) to have received the TV signal transmission at least one of a plurality of TV receiver locations/*stations*; 5) to have received, separated, and decoded the teletext data packets of the TV signal transmission; 6) to have used the headers of the decoded page/image/packet(i.e. the control signals) to select, store, and organize ones of the groups of character/graphics codes into a displayable teletext page/image format; and 7) to have outputted and displayed the program related teletext data in the form of a



displayable teletext page/image "in conjunction with" (i.e. either boxed into or overlaid on) the first image of the associated video signal in response to a subsequently transmitted "reveal" instruction signal (i.e. corresponding to the recited "instruct signal"). The examiner cites:

- 1) The publication "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)" as exemplifying such notoriously well known mode II teletext system operation [see lines 1-21 on page 137; page 138; pages 149-151, pages 159-161; the description of the "REVEAL" display mode on page 179; etc,...]; and
- 2) Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc. as further evidenced of such notoriously well known mode II teletext system operation.

The examiner maintains that it would have at least been obvious to those of ordinary skill in the art that a signal detector, a processor, and an output device were essential/mandatory components of any teletext receiver configuration which operated: 1) to receive teletext data packets; 2) to decode said received packets, and 3) to process said decoded packets in order to locally generate and output teletext images/pages (i.e. as in the case of the applied prior art).

65. Claims 124-141 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known "MODE 2" type captioning as has been described in the publications "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)" and Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc., for the same reasons that were set forth for claim 123 above.

66. Claim 123 is rejected under 35 U.S.C. 103(a) as being unpatentable over the conventional broadcast Videotext distribution system that was defined in the "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT" (i.e. as submitted by applicant).

I. The "BS-14 Issue-I Provisional BROADCAST SPECIFICATION":

The broadcast specification defines a conventional teletext distribution systems which included:

1) a "*Delayed Message*" feature in which packets of teletext data were used to transmit a desired displayable teletext message from an origination station to receiving station whereby the desired message was stored at the receiver station but not immediately displayed: the receiver station would display the stored message in response to the receipt of a subsequently transmitted display command/instruction transmitted from the origination station, via additional teletext data packets, in the form of a "*specific 'reveal' message*" [note the description of bit "b6=1" in the last 7 lines of page 19].

## II. Differences:

Claim 123 differs from the conventional teletext distribution system defined by the specification in that the specification did not explicitly describe using the "*Delayed Message*" feature specifically for the purpose of transmitting "program-related messages" which were to be displayed in conjunction with the images of the TV programming with which they were related.

## III. Obviousness:

The examiner takes Official Notice that it was notoriously well known in the Videotext/teletext art to have used Videotext/teletext distribution as the means for transmitting "program-related messages" to the receiver stations for display in conjunction with the TV programming with which the messages were related. In fact, the cited specification describes the defined system as having further comprised:

2) a "*Boxed Message*" feature in which packets of teletext data were used to transmit a desired displayable message from an origination station to receiving station wherein the desired message was actually related to the TV programming carrying the message and thus was displayed at the receiver station along with, i.e. in conjunction with, the image of the TV program with which it was related [note the description of bit "b8=1" in the last 13 lines on page 19].

The examiner maintains that it would have at least been obvious to one of ordinary skill in the art to have used the "*Delayed Message*" feature of the system defined

by the specification to carry/transport "program-related" messages; i.e. to carry messages which were to be displayed according to the "Boxed Message" feature of said same described system; i.e. the examiner maintains that one skilled in the art would have recognized that setting bit "b8=1" and "b6=1", as set forth in the last 13 lines of page 19 of the cited specification, were not mutually exclusive processes <sup>115</sup>.

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FOR THE RECORD: The examiner continues to take the position that the all of the following elements comprise essential components of any/all teletext distribution systems:

- 1) a teletext information/signal/packet source;
- 2) a TV program/signal source;
- 3) an originating broadcast station comprising insertion circuitry for embedding the teletext packets from the teletext signal source into the VBI of the TV programming provided from the TV program/signal source to create a combined information signal;

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<sup>115</sup> In fact, the examiner notes that captioning exemplified a known type "program-related" message for which both the "delayed message" and the "boxed message" features of the teletext service were simultaneously used as was described in pages 137-138 of the publication "CBS CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)".

4) a transmitter, at the origination station, for transmitting the combined information signal as a combined information transmission; and

5) at least one receiver station including a Videotext/teletext decoder for:

- a) receiving the combined information transmission;
- B) demodulating the combined information transmission;
- C) extracting the teletext packets from the demodulated signal;
- D) detecting/decoding the extracted packets to recover decoded information; and
- E) processing the decoded information for further processing/display.

67. Claims 124-141 are rejected under 35 U.S.C. 103(a) as being unpatentable over the conventional broadcast Videotext distribution system that was defined in the "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT" (i.e. as submitted by applicant), for the same reasons which were set forth above for claim 123.

68. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over "MODE 2" type *delayed* captioning as described in one or more of:

- 1) The "CBS/CCETT NORTH AMERICAN BROADCAST TELETXT SPECIFICATION (EXTENDED ANTIOPE)";

2) Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc; and

3) "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT",

in view of conventional CPU/Software implemented Teletext decoders as exemplified via the showing of Betts [UK Patent document #1,556,366]. The examiner notes the following:

I. As evidenced by the applied "prior art" (i.e. the first three citations), the examiner takes *Official Notice* that it was notoriously well known in the art for teletext standards to have included delayed message features, e.g. such as "MODE 2" captioning, which enabled:

1) different pages of "program-related" data to be sequentially downloaded to respective groups of teletext receivers/decoders for storage therein; and

2) the subsequent transmission of a control signal, e.g. such as a "reveal code", for causing the different downloaded and stored pages of "program-related" data to be simultaneously displayed, e.g. as program-related overlays, by the respective groups of teletext receivers/decoders.

II. As evidenced by the applied "prior art" of Betts, the examiner takes *Official Notice* that it was notoriously well known in the art as having been advantageous to have implemented conventional teletext decoders in "software", e.g. via a software driven CPU, instead of hardware.

III. In view of the showing of Betts, the examiner maintains that it would at least have been obvious to one of ordinary skill to have implemented the notoriously well known "*delayed message feature*", that was defined within many conventional teletext standards/specifications, using a software driven CPU as opposed to hardware <sup>116</sup>. It is noted, that such a modified system would have inherently comprised all of the following:

1) a teletext service provider for sequentially outputting the pages of program-related teletext data which were to be downloaded to the respective software implemented teletext decoders; wherein each page of program-related teletext data, by its very nature, inherently comprised a respective series of "downloadable processor instructions" to be executed by the respective software driven CPU/"processor" in order to generate a respective "program-related" image/overlay (e.g. the desired "MODE 2" caption);

2) said teletext service provider for subsequently outputting, at some predetermined time, the respective control signal (e.g. the "reveal code") which was needed to cause the previously downloaded and stored pages of program-related teletext data (e.g. the "series of instructions") to be *executed* by the software driven CPU in order to cause the respective locally generated overlay/image to be outputted and displayed over the TV program with it is "related";

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<sup>116</sup> Given all of the advantages that were known to have been provided via such a "software" implementation.

3) a TV distribution network, comprising a TV transmitter station, for receiving the pages of program teletext data and the subsequently outputted control signal from the teletext service provider and for inserting said data into the VBI of distributed/transmitted TV programming in the form of a standard teletext transmission; and

4) the respective groups of software driven teletext decoders for: receiving and storing the downloaded "program-related" teletext data/"instructions"; and *executing* said downloaded instructions to create, output, and display respective locally generated overlays in response to the subsequently transmitted control signal (e.g. a subsequently transmitted "reveal code").

69. Claims 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over "MODE 2" type *delayed* captioning as described in one or more of:

1) The "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)";

2) Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc; and

3) "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT",

in view of conventional CPU/Software implemented Teletext decoders as exemplified via the showing of Betts [UK Patent document #1,556,366], for the same reasons that were set forth for claim 75 above.



70. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over the 8/81 article "Landmark forms cable weather news network" of *EDITOR & PUBLISHER* (i.e. as submitted by applicant - see APPENDIX VIII attached hereto) in view of "MODE 2" type *delayed* captioning as described in one or more of:

- 1) The "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)";
- 2) Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc; and
- 3) "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT".

AN OVERVIEW OF THE REJECTION:

The *EDITOR & PUBLISHER* article described a television distribution network in which live TV programming, representing national/regional weather forecasts, was produced at (and/or was provided to) a centralized transmission station. At the centralized transmission station, the live TV programming was then mixed/combined with TV commercials representing advertisements for national products. The resulting mixed/combined TV signal was then broadcast, via satellite, from a transmitter of the centralized transmission station to a *Satellite Transponder Addressable Receiver* (a "STAR") that was located at the headend of each of a plurality of local cable networks which subscribed to the weather forecast service. A "program related" Teletext data

stream was also generated and provided to the centralized transmission station where it was embedded within the VBI of the mixed/combined TV signal and distributed along with the mixed/combined TV signal to said "STARS"/headends. The "program related" Teletext data stream comprised Teletext data that represented various local weather forecasts and local advertising captions each of which was targeted to a respective one of the locally situated "STARS"/headends. By inlaying/overlaying the targeted local Teletext weather forecasts and local advertising captions over the distributed TV signal, each "STAR"/headend was capable of specifically customizing the national/regional weather forecasts and advertisements of the TV broadcast with overlaid/inlaid teletext specific to its locality.

The EDITOR & PUBLISHER article was silent as to the mechanism that was used so as to have enabled the various "STARS"/headends of the network to have simultaneously/synchronously inlaid/overlaid their different/respective local versions of the teletext transmission (captions) over the live national/regional weather and advertising TV broadcast. However, one known and conventional mechanism for achieving such a required result was via the *delayed message* feature (i.e. "Mode 2" captioning) which was an integral part of most/all teletext "standards" of the time. In fact, the examiner knows of no other way by which different "program related" teletext captions were conventionally added at different receiver locations to the same TV broadcast.

Given the above, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have used a conventional *delayed message* feature (i.e. "Mode 2" captioning) as the mechanism by which the different versions of local Teletext image data were added to the live TV broadcast within the "STARS"/headends of the network

which was set forth in the EDITOR & PUBLISHER article.

As to the details of this rejection, the following is noted:

I. The showing of the EDITOR & PUBLISHER article:

The EDITOR & PUBLISHER article described a TV broadcast system which was to transmit weather news 24-hours per day on, what was to be called, the "Weather Channel". As set forth in the article, the programming carried by said "Weather Channel" would "combine" live studio broadcasts of national and regional weather forecasts "*with*" teletext transmissions of local weather news [see lines 6-10 of column 1].

As described in the EDITOR & PUBLISHER article, the system would operate as follows: 1) the "Weather Channel" programming would be broadcast, via a satellite, from an origination station location in Atlanta to local cable operators; 2) the "Weather Channel" programming broadcast would be received by the local cable operators at a plurality of local CATV system locations; 3) a special addressable receiver would be provided at each CATV system location for receiving that portion of the teletext transmission which contained the local weather news corresponding to the locality serviced by the respective CATV system location; 4) each CATV system location would use the received portion of the teletext transmission to locally generate displayable *teletext* images containing the local weather news; and 5) each CATV system location would combine the locally generated teletext images with the live studio broadcast to create "customized" programming which would be distributed over to the subscribers

service by the respective CATV system location.

Specifically, the EDITOR & PUBLISHER article described a system which explicitly, or at least implicitly, comprised the following structure:

- 1) some type of studio, i.e. located in Atlanta, from which conventional TV programming is produced (i.e. the "live" national/regional TV forecasts, the national advertisements, etc,...);
- 2) a configuration of computers, also located in Atlanta, which have access to the data base of the National Weather Service in Washington D.C., and which would use this data base and other data bases to generate and send, e.g. via teletext transmissions, the information which is required to create "customized" National Weather Service forecasts/bulletins and "customized" national advertising (i.e. national advertising which is then "tagged" with local information) at a plurality of CATV operator locations;
- 3) some type of origination station, i.e. located in Atlanta, for producing the "Weather Channel" programming by combining the conventional TV programming from the studios with the information of the teletext transmission;
- 4) some type of transmitter for transmitting the produced "Weather Channel" programming;
- 5) some type of satellite, i.e. the "Satcom I", for carrying/beaming the transmitted "Weather Channel" programming from the origination station to the CATV operator locations, i.e. inherently/obviously the CATV *headends*, of the network of local cable systems which was known as

"Cablenet I";

6) some type of reception circuitry which was located at each of the operator locations for receiving the "Weather Channel" programming from the satellite and for creating under control of the configuration of computers in Atlanta, i.e. via an addressable receiver device called the "Weather *STAR*" (i.e. an acronym for Satellite Transponder Addressable Receiver), said "customized" National Weather Service forecasts/bulletins and "customized" national advertising which were *addressed* specifically to said reception circuitry location;

7) said reception circuitry which created the "customized" National Weather Service forecasts/bulletins and "customized" national advertising by either "sequentially or simultaneously" <sup>117</sup> combining the conventional video portion of the received "Weather Channel" programming with the appropriately addressed portion the teletext transmission of said received "Weather Channel" programming; i.e. creating programming which was "customized" for the locality serviced by the respective CATV operator; and wherein, as explicitly described, said customized programming could comprise:

a) national and regional news broadcasts combined with teletext images identifying local weather news/warnings;

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<sup>117</sup> While the article does not explicitly specify whether the teletext image data is combined in a time division fashion (i.e. sequentially) or in an overlaid fashion (simultaneously), said signal must be combined in one of the two fashions in view that the terminology "simultaneously or sequentially" inherently covers all possibilities; i.e. The signals must be combined either simultaneously or sequentially.

b) broadcasts comprising national advertisements combined with teletext images identifying the names and locations of local stores carrying the nationally advertised product; etc,....

## II. Differences:

The EDITOR & PUBLISHER article lacked specific details **as to how** the described system was to be configured so as to have provided the described process of simultaneously distributing and combine different versions of program related teletext transmissions with the same live broadcast at different headend locations.<sup>118</sup> More specifically, the EDITOR & PUBLISHER article failed to explicitly describe the structure which was required/used to achieve the following explicitly described operations:

1) to combine the live national/regional weather broadcast with the local news image data derived from one portion of a teletext transmission which was addressed to a first headend location while, simultaneously, combining the same national/regional weather broadcast with a different local news image data derived from a different portion of the teletext transmission addressed to a different headend location; and

2) to combine a broadcasted national advertisement with image data corresponding to local store names/locations derived from one portion of a

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<sup>118</sup> The article explicitly describes what is done but does not describe, explicitly, how it is done.

teletext transmission addressed to a first headend location while, simultaneously, combining the same broadcasted national advertisement with different image data representing different local store names/locations derived from a different portion of the teletext transmission addressed to a different headend location.

### III. Conventional "MODE 2" type *delayed* captioning systems:

See the preceding paragraph of this Office action.

### IV. Obviousness:

The EDITOR & PUBLISHER article described a system in which a teletext transmission system was used to carry different "program related messages" to different receiver locations for display with the same TV programming in order create "customized" TV programming at each receiver location; i.e. wherein the different "program related messages" comprised different local news messages, different local store names and locations, etc,... More specifically, the system described in the EDITOR & PUBLISHER article required different program-related teletext messages to be downloaded to different receivers (i.e. obviously at different times <sup>119</sup>) so that each program-related message could then be respectively overlaid over the same TV programming (i.e. obviously at the same

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<sup>119</sup> The examiner notes that teletext data and messages are transmitted through a teletext channel serially and therefore different teletext messages can never be transmitted over the same channel at the same time. The examiner notes that the bandwidth that is available to teletext transmissions is very limited so that it takes a substantial amount of time to download different messages to different receivers; i.e. hence the reason that the delayed message feature was necessary in order to transmit and display different captions to different receivers for simultaneous display (i.e. there is not enough bandwidth to download all of the different captions at the designated time as would be required without said *delayed message* feature).

time).

The examiner maintains that a well known way, if not the only known way, of performing such a task via conventional teletext transmission technology was via the *delayed message* feature of "standardized" teletext systems. More specifically, the *delayed message* feature of standardized teletext systems was developed specifically for the purpose of enabling different program-related messages (e.g. such as different captions) to be downloaded to different receivers ahead of a designated display time whereby all of the downloaded messages could then be displayed at the designated display time via a transmitted reveal display instruction/cuing signal [e.g. as has already been described in the preceding paragraph of this Office action] .

While the EDITOR & PUBLISHER article does not describe how to implement the described teletext transmission system so as to provide the described feature of transmitting and displaying different program related messages over the same TV programming at different receiver locations, the prior art of record evidences the fact that it was known and conventional to implement this same teletext transmission functions by using the *delayed message* feature (e.g. "mode 2" captioning feature) which entailed:

- 1) transmitting the different program related messages to the different receiver location for capture and storage therein ahead of a desired display time;
- 2) transmitting a simple control/instruction packet at the beginning of the desired display time so as to cause each receiver location to superimpose



its captured and stored message over the related TV programming at the beginning of the desired display time; and

3) transmitting a simple control/instruction packet at the end of the desired display time so as to cause each receiver location to stop superimposing its captured and stored message over the related TV programming at the end of the desired display time.

Armed with a knowledge of conventional teletext systems/standards (as one of ordinary skill in the art would have been), the examiner maintains that it would have been obvious to one skilled in the art to have implemented the teletext system described in the EDITOR & PUBLISHER article, e.g. to have provided the display of different program related teletext messages at different receiver location as was described in the EDITOR & PUBLISHER article, using what seems to be the only known and conventional way of having provided such a feature; namely, using the delayed message feature of standardized teletext systems (i.e. "mode 2" captioning).

71. Claims 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over the 8/81 article "Landmark forms cable weather news network" of EDITOR & PUBLISHER (i.e. as submitted by applicant - see APPENDIX VIII attached hereto) in view of "MODE 2" type *delayed* captioning as described in one or more of:

1) The "CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)";

2) Appendix "B" of a 1980 "PETITION FOR RULEMAKING" that was filed with the FCC by CBS Inc; and

3) "BS-14 Issue-I Provisional BROADCAST SPECIFICATION" for "TELEVISION BROADCAST VIDEOTEXT" ,

for the same reasons that were set forth above for claim 75 .

72. Claim 80 is rejected under 35 U.S.C. 103(a) as being unpatentable over the "SYSTEMS/ NABTS NAPLPS" publication by "VSA-Video Graphics Systems of America" [i.e. as submitted by applicant ], and/or the article "TELETEXT SIGNAL GENERATION EQUIPMENT AND SYSTEMS" by Mothersole, in view of Germany [GB 959,274].

I. The showing of the "VSA" publication and/or the showing of the Mothersole publication:

The publication by "VSA" has been cited for its "*clean*" illustration of a *typical* TV broadcast station configuration [i.e. see the figure that is labeled "TELETEXT/ TYPICAL STATION CONFIGURATION"]. This typical configuration included network and local TV broadcast stations for broadcasting network and local TV programming that included network and local teletext transmissions too. Specifically, this figure evidence the *typical* TV broadcast station configuration as comprising:

1) a network TV broadcast station (not shown in the figure) for providing

network TV programming (i.e. the "NETWORK VIDEO") and a network teletext transmission (i.e. the network "DATA"); and

2) a local TV broadcast station (as is shown in the figure) which included:

a) a switching circuit (i.e. the "MASTER CONTROL SWITCHER") which: receives locally produced TV programming at least one input (i.e. identified by the label "LOCAL PRODUCTION"); receives locally produced commercials at least one input for insertion into its locally broadcasted TV programming (i.e. identified by the label "LOCAL COMMERCIAL INSERTION"); receives the network TV programming from the network broadcast station at least one input (i.e. labeled "NETWORK VIDEO"); and selectively outputs one of the three received types of TV programming according to some type of broadcast schedule.

B) a local teletext production facility (i.e. "TELETEXT PRODUCTION SYSTEM"); and

C) a teletext insertion device (i.e. labeled "TELETEXT INSERTION POINT"), which includes teletext data bridge, for inserting locally produced teletext pages and pages of teletext obtained from the received network teletext transmission into the

VBI of the TV programming that is currently being outputted by the local station (i.e. the selected TV programming that is currently being outputted from the switching circuit);

3) a TV transmitter (i.e. symbolized by an illustrated antenna) for broadcasting the locally outputted TV programming containing the inserted local and network teletext transmission; and

4) household receiving station (i.e. symbolized by an illustrated house) which includes receiving and teletext decoding means <sup>120</sup> (i.e. labeled "TV WITH DECODER") with for receiving and displaying both the locally broadcasted TV programming and the teletext transmission contained therein.

The examiner notes that while applicant submitted the "VSA" publication for consideration in his filed IDS statements, applicant failed to identify a date that this article was published. If case applicant's arguments show/suggest that this "VSA" publication does not have a good date, the examiner would turn to the Mothersole publication for its description of the same network configuration that was set forth above; i.e. the Mothersole publication comprises a less clean format/presentation

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<sup>120</sup> The examiner maintains that all teletext decoders inherently comprised: a *receiver* for receiving the teletext transmission; a *signal detector* for detecting and extracting pages of desired teletext data; a *processor* for converting the extracted pages of data into locally generated video signal; and an *output device* for outputting the locally generated video signal to a display device [i.e. corresponding to the recitation of 3-4 of claim 80].

of the same network configuration and thus, for the sake of clarity, has been reserved/applied only as a hedge against potential arguments/submissions by applicant to have the "VSA" publication removed from consideration. Stated another way, the examiner maintains that the "VSA" publication represents the state of the TV broadcast art that existed at the time of applicant's alleged invention whether or not the "VSA" publication itself has a good date; i.e. the Mothersole publication, if needed, has been cited for the purpose of evidencing the same structures [note: figures 4(a) and 4© on page 349; the first 4 lines under the heading "2.6 Teletext Networking" on page 348; the last 9 lines under the heading "1. INTRODUCTION" on page 345; etc,...].

## **II. Differences and obviousness:**

Claim 80 differs from the showing of the "VSA" publication and/or the showing of the Mothersole publication only in that:

1) The applied publications fail to explicitly state that the network teletext transmissions comprised teletext data (i.e. corresponding to the recited "instruction signal") which instructed the teletext decoders at the household station locations to generate and output a locally generated portion of a video presentation that was displayed "in conjunction" with the video portion of the locally broadcasted TV programming.

The examiner takes Official Notice that it was notoriously well known in the art to have used teletext transmission to broadcast "program related" teletext data which, as with *typical* teletext data, was be used to instruct

the teletext decoders at the household station locations to generate and output a locally generated video signal which could then overlaid over the video portion of the received TV signal to which it was related. "Subtitles" being the most common example of overlaid "program related" teletext data. The examiner maintains that it would have been obvious, if not inherent, for the network teletext transmission of the applied publications to have comprised such well known forms of program related data.

2) The applied publications fail to explicitly state that the network transmissions comprised "at least one control signal" that were used at the remote intermediate transmitter station (i.e. corresponding to the local broadcast station of the applied publications) to control the communication of at least one of said video and instruct signals. The examiner maintains that this recitation is so broad that it reads on the "control signals" (i.e. such as "page numbers") which were part of any/all teletext broadcasts and which allowed the local data bridge to identify those pages (i.e. the "instructions") of the network teletext broadcast which were to be "bridged"; i.e. extracted from the network teletext broadcast and placed into the local teletext broadcast. Alternatively, Germany has been cited as evidencing the obviousness of having inserted additional "control signal" (i.e. "cuing signals") into the network television broadcast for the purpose of automatically controlling the routing of the network programming through the local broadcast station by automatically controlling the switching operation of the switching circuit in response thereto. In the

alternative, the examiner maintains that it would have been obvious to have modified the system described in the applied publications with the cuing system described by Germany so as to have desirably automated the switching operation of the switching circuit of the local TV broadcast station (i.e. which again, corresponds to the claimed *intermediate station*).

73. Claims 81-83 and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over the "SYSTEMS/ NABTS NAPLPS" publication by "VSA-Video Graphics Systems of America" [i.e. as submitted by applicant ], and/or the article "TELETEXT SIGNAL GENERATION EQUIPMENT AND SYSTEMS" by Mothersole, in view of Germany [GB 959,274] for the same reasons that were set forth above for claim 80.

74. Claim 84 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "A Public Broadcaster's View of Teletext in the United States" by Gunn et al.

I. The Showing of Hedger et al.:

1) The examiner notes that the term "Telesoftware," meaning *software at a distance*, was coined for the purpose of covering: "the concept of broadcasting computer programs as part of a normal teletext service" [see lines 12-17 under the heading "ORACLE TELESOFTWARE" on page 560

of Hedger et al.]. More specifically, Telesoftware programs were stored as normal teletext pages within the teletext database computer of the television broadcast so that they could be: retrieved from the database as normal pages of teletext data; inserted into the VBI of a television signal broadcast as a normal page of teletext data; transmitted to household receiver station location within the VBI of the television signal broadcast as a normal page of teletext data; and extracted and processed at those of said household receiver station location which comprises an appropriately modified teletext receivers/decoders [note the discussion under the heading "ORACLE and TV Transmission System" which begins on page 561 of Hedger et al.]. The appropriately modified teletext receiver/decoder was controlled by microcomputer which was pre-programmed with a "resident control program" which was at least responsible for controlling the teletext decoder to capture, acquire, and run those of the received teletext pages which comprised desired Telesoftware programming [see the discussion under the heading "The Telesoftware Receiver" on page 562 of Hedger et al.]. Once loaded and run by the microcomputer, Telesoftware programming was known to have performed *information manipulation* by controlling the teletext receiver/decoder to capture and acquire further pages of conventional teletext data which contained the information which was to be manipulated the running Telesoftware programming [note lines 20-30 under the heading "The Telesoftware Receiver" on page 562 of Hedger et al.]. One illustrated example of such *information manipulation*,



was a Telesoftware program which could be used to compute the rise (or fall) in values of a users stock portfolio which, when acquired and run, at least operated: 1) to determine the shares of stock that a user held in the his/her portfolio from locally stored user portfolio information; 2) obtained current prices for the shares of stock held in the user's portfolio by capturing/acquiring conventional pages of teletext data containing said stock price information; and 3) by calculating the rise (or fall) of the user's portfolio based on the obtained share prices [see lines 25-34 under the heading "Information Manipulation" on page 564 of Hedger et al.]. The examiner notes the following:

1) The recited "first discrete signal" of claim 84 reads on the data which actually comprised the Telesoftware program in Hedger et al. while the recited "second discrete signal" of claim 84 reads on the teletext page headers/numbers which were inherently associated with Telesoftware program data during its transmission as standard teletext pages [i.e. this reading is clearly consistent with applicant's own alleged support of claim 84];

2) Alternatively, the recited "first discrete signal" of claim 84 reads on the captured teletext pages which provided the Telesoftware program that was loaded and run in Hedger et al. while the recited "second discrete signal" of claim 84 reads on the captured acquired teletext pages which provided the information which manipulated by the loaded/running software;

3) Alternatively, the recited "first discrete signal" of claim 84 reads on a first discrete teletext data packet which carries a first portion of the Telesoftware programming in Hedger et al. while the "second discrete signal" reads on a second discrete teletext data packet which carries a second portion of the same Telesoftware programming in Hedger et al., wherein the two portions must be organized with respect to each other in order to obtain the entire Telesoftware program that must be loaded and run; etc, ...

## **II. Differences:**

Claim 84 differs from the Telesoftware system set forth in Hedger et al. only in that Hedger et al. did not state that the results of his Telesoftware manipulations resulted in information that was displayed "in conjunction" with the display of a related TV signal broadcast; i.e. the execution of the Telesoftware program in Hedger et al. was not explicitly described as having been performed/displayed in conjunction with a related TV signal broadcast.

## **III. The showing of Gunn et al.:**

Gunn et al. has been cited because it evidenced the fact that those skilled in the art had recognized the desire to have used "program-related teletext" transmissions having a content which adds something to the broadcasted television program with which it is related [note the first 10 lines on the fourth page of the publication].

Gunn et al. recognized the fact that such program related teletext was not to be

limited to pages of program related character/text data but included pages of program related Telesoftware which was to be simultaneously acquired and run by the receiver/decoder in conjunction with the display of the TV programming with which it was related [note the first 17 lines on the fifth page of the publication]. As a specific example, Gunn et al. described an application in which Telesoftware was captured and run by the receiver/decoder at the household locations *so as to analyze a user's stock portfolio* simultaneously and in conjunction with the receipt and display of the "*Wall Street Week*" television program; i.e. Gunn et al., however, did not specify how the stock portfolio was to be analyzed.

#### IV Obviousness:

The examiner maintains that it would have at least been an obvious choice of design to have implemented the program related Telesoftware described in Gunn et al. with information manipulating stock Telesoftware of the type that was described by Hedger et al. in order to have enhanced the content of received/displayed TV programming; i.e. Gunn et al. evidencing the fact that it was known in the art to be desirable to have enhanced the presentation of a broadcasted television program via program related Telesoftware. As a specific example, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the "unspecified" stock portfolio analyzing Telesoftware that was described in Gunn et al. (see lines 2-17 on the fifth page of the document) using the "specified" information manipulating type of

stock portfolio analyzing Telesoftware which was set forth by Hedger et al. (see lines 25-34 under the heading "Information Manipulation" on page 564 of Hedger et al.).

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#### FOR THE RECORD

1) It is the examiner's position that the Hedger et al. and Gunn et al. publications, taken together, not only evidenced the obviousness of having used program related Telesoftware to generate and display information in conjunction with the broadcasted TV program to which it is related, but that the Hedger et al. and Gunn et al. publications evidenced the obviousness of having used information manipulating Telesoftware to analyze a users stock portfolio so as to generate and display information related to the same "*Wall Street Week*" TV program that was described in applicant's own disclosure; i.e. the same "*Wall Street Week*" programming embodiment from which all of the above rejected claims allegedly derive required 112-1 support.

2) While there is clearly a close correlation between the "*Wall Street Week*" embodiment that was shown/taught/suggested by the Hedger et al. and Gunn et al. publications and the "*Wall Street Week*" embodiment that was disclosed by applicant, examiner recognizes the fact that the "*Wall Street Week*" embodiment that was shown/taught/suggested by the showing of Hedger et al. and Gunn et al. does not appear to show or suggest all of

the features which were set forth for "*Wall Street Week*" embodiment of applicant's own disclosure. However, in view of the extensive 112-1 issues which have been raised during the current prosecution, it continues to be unclear to the examiner as to whether any of these distinguishing features have actually been claimed. For example, at first glance, one might be tempted to interpret the recited "control signal" of applicant's claims as being limited to transmitted instruction signals of the 1987 written description which cause the ultimate receiver stations to: execute computer software contained at the receiver station; display images that have been generated at the receiver station; etc,... However, referring to Appendix A of applicant's last response, such an interpretation of the "control signal" terminology would in fact be wrong. Specifically, as evidenced by appendix A with respect to the 1987 disclosure, applicant himself is reading (i.e. or perhaps *mis-reading* in accordance with the requirements of 112-1) the "control signal" terminology as comprising various types of header codes which were associated with transmitted discrete data/software signals/packets. If applicant's reading of "control signals" is accepted, then the recitations related to the processing of such "control signals" fail to distinguish applicant's claimed invention over conventional the teletext data/software transmissions of the applied prior art because such teletext data/software inherently comprised such associated header codes too.

3) If applicant has in fact "automatically deprived" himself his alleged 1981 effective filing date, then there are in fact other references of record which go to further substantiate the obviousness of having used downloaded Telesoftware as the vehicle for combining teletext and television into a combined presentation.<sup>121</sup>

75. Claims 85-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

76. Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

77. Claim 94-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 93 above.

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<sup>121</sup> For example, note the first full paragraph on page 42 of the Summer 1982 "Telesoftware and Education Project" Report which was cited by applicant.

78. Claim 110 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

79. Claim 111-115 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 110 above.

80. Claim 152 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

81. Claim 153-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 152 above.

82. Claim 143 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

83. Claim 143-151 are rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 143 above.

84. Claim 142 is rejected under 35 U.S.C. 103(a) as being unpatentable over the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al. and the publication "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. for the same reasons that were set forth for claim 84 above.

85. Claim 157 is rejected under 35 U.S.C. 103(a) as being unpatentable over Diederich [DT 2,356,969].

I. Preface:

Given its broadest reasonable interpretation, it appears that claim 157 only recites/requires the following:

1) an *origination transmitter station* which receives and transmits a *signal*



which containing *a video image* and an *instruct signal*;

2) *said origination transmitter station* which also receives and transmits *control signals*;

3) an *intermediate transmitter station* which controls a communication of *at least one* of *said video image* or *said instruct signal* based on *said control signals* which are transmitted from *said origination transmitter station*; and

4) a plurality of *receiver stations* wherein at least one of *said receiver stations* generates and outputs a *local image* in conjunction with *said (communicated) video image* based, in some unspecified way, on *said (communicated) instruct signal*.

## II. The showing of Diederich:

Diederich disclosed a system which comprised:

- 1) an origination transmitter station [i.e. "a" sketch 2];
- 2) one or more intermediate transmitter stations [i.e. "B1", "B2", and "B3" of sketch 2]; and
- 3) a plurality of receiver stations [i.e. "C0", "C1", "C2", and "C3" of sketch 2].

More specifically, Diederich disclosed a system which comprised:

- 1) said origination station which received and transmitted a signal (i.e. the signal provided from element "a" which comprised a video image (i.e. the television signal provided from studio "b") and control signals (i.e. the

modulated impulses provided from element "c"); and

2) at least one intermediate transmitter station (i.e. shown in detail via sketch 1) which received the signal transmitted from the origination station (i.e. @ receiving element 1) and which controlled how the received video image was communicated to its own transmitter (i.e. @ the output of element 2) based on the received control signals (i.e. via the switching operation provided by elements 2-6).

### III. Differences:

Claim 157 differs from the showing of Diederich only in that Diederich did not describe circuitry at the origination station for receiving and transmitting an instruct signal which is effective at one or more of the receivers to generate an output a local image in conjunction with the video image.

### IV Obviousness:

The examiner takes Official Notice that it was notoriously well known in the TV broadcast art for TV origination stations to have comprised circuitry for inserting closed-caption data (i.e. corresponding to the recited "*instruct signal*") into their TV signal broadcasts thereby "*instructing*" decoders of TV receivers/stations to locally generate captions/images for display in conjunction with the images of the broadcasted. The examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified the system

disclosed to by Diederich to have provided such a desirable closed-captioning service by including: 1) conventional caption data encoding circuitry, at the origination station, for inserting caption data into the broadcasted TV programming; and 2) conventional caption data decoding circuitry, at least ones of the receiver stations, for decoding the broadcasted caption data so as to "*instruct*" the generation and display of locally generated captions/images in conjunction with the images of the TV.

86. Claims 158-161 are rejected under 35 U.S.C. 103(a) as being unpatentable over Diederich [DT 2,356,969] for the same reasons that were set forth for above for claim 157.

87. Claim 75 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2,904,981].

### **I. PREFACE:**

The examiner takes Official notice that "interactive display systems" were notoriously well known in both the television and movie arts at the time of applicant's alleged invention; wherein these "interactive display systems" comprised:

- 1) a source of video and/or audio clips which, taken as a whole, represented many versions of the same video and/or audio presentation;

2) an input device for receiving inputs and/or responses from a user; and  
3) a selection and/or assembling device which, based on the inputs/responses of the user, stringed together the subset of the video and/or audio clips so as to create the one of the many versions of the video and/or audio presentation which corresponds, e.g. was specifically tailored to, the inputs/responses of said user.

Thus, for example, a user might queried to provide inputs which would determined the course of a given video and/or audio presentation so as determine whether the presentation would be presented with a happy ending or, alternatively, with a sad ending.

The examiner maintains that the system described in the Zaboklicki prior art represents nothing more than one specific example of such notoriously well known "interactive display system" art. In the Zaboklicki implementation, "the source" of video and audio clips (e.g. "fragments"<sup>122</sup>) comprised a remote TV transmitting station which transmitted the entire "pool" of video and/or audio clips, wherein the "pool" of clips represented all of the many versions of the given TV presentation. In Zaboklicki, "the selection and/or assembling device" comprised a computer controlled receiving device, one of which was located at each of a plurality of TV receiving stations. In operation, the Zaboklicki system functioned to download computer software, in the form of "Telesoftware", from the remote broadcast station to each of the computer controlled receiving devices located at each receiving station. This downloaded software was then loaded and run by each

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<sup>122</sup> Which comprised audio clips, video clips, and teletext image clips in the Zaboklicki implementation.

computer at each receiving station thereby giving each computer (and each receiver station) the intelligence that was needed to independently string together that sequence of the transmitted "pool" of audio and/or video clips/"fragments" that produced the version of the presentation that corresponded to, e.g. was tailored to, the specific inputs/responses of the respective user. The Zaboklicki configuration resulted in a system in which the display of a specific interactive/"dialogue" television presentation could be simultaneously tailored in "parallel"<sup>123</sup>, via downloaded software, to the specific needs/desires of each user at each receiver station. Understanding this concept alone would, by itself, have been enough to have enabled one of ordinary skill in the art to have made and used the invention that was disclosed within this Zaboklicki publication; i.e. being that the alleged novelty of Zaboklicki actually rested in the concept/idea of *improving* on "prior art" interactive/dialogue systems by using downloaded "Telesoftware" as the vehicle for providing the intelligence that was needed to simultaneously produce different versions of an interactive presentation at respective receiving stations.

## **II. Applicant's Last Response:**

1) Again, it is maintained that all of applicant's allegations that the Zaboklicki

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<sup>123</sup> The downloading of "Telesoftware" in order to perform "parallel" processing at computer controlled receivers of Zaboklicki is not unlike the "parallel" processing/configuration of applicant's own alleged invention(s) [note lines 13-20 on page 427 of applicant's instant specification].

disclosure was not enabling of that which it disclosed are founded within the unrealistically low level of skill in the art that has been adopted by applicant when dealing with this applied reference. For example, applicant has even gone so far as to allege that one of ordinary skill in the art would not have understood the meaning of terminology that was, in fact, notoriously well known in the art at the time of applicant's alleged invention (e.g. "dialogue television" being but one example of the notoriously well known terminology that applicant has alleged would not have been understood).

2) The examiner also notes that the art rejections which are based on "Zaboklicki" are based solely on German Patent Document # DE 2,904,981 and the certified translation of this document that was obtained by the PTO. To date, applicant has failed to provide any proof which shows this certified translation to be incorrect/erroneous/invalid. Until such proof is provided, the Office will continue to believe that the certified translation obtained by the PTO is correct/accurate/valid.

3) In their attack on the Zaboklicki showing, applicant now focusses much of their efforts on identifying discrepancies that exist between the certified translation of German Patent Document # DE 2,904,981 and other members of this patent document's "*Patent Family*". The examiner points out that if the certified translation of German Patent Document # DE 2,904,981 is in fact correct/accurate/valid, then any discrepancies and/or inconsistencies which might

exist between the translated document and its "family" are irrelevant<sup>124</sup>. Again, if applicant wishes to challenge the validity of the PTO's certified translation of German Patent Document # DE 2,904,981, then applicant must do so with proof/evidence (e.g. such as with an affidavit from applicant's own certified translator) which shows that the PTO's certified translation is in fact wrong and/or in error.

### III. The System Structure Disclosed by Zaboklicki :

a) Zaboklicki disclosed an interactive/"dialogue" TV programming distribution and display system that comprised a *centralized* TV transmitting station (not shown in the figures) and a plurality of receiving station (e.g. one embodiment of which is shown in figure 3). The transmitting station functioned to distribute/transmit/broadcast collections of TV programming "fragments" to the plurality of receiver stations, wherein each collection of said programming "fragments" belonged to a respective interactive TV programming presentation. The TV programming "fragments" themselves were comprised of at least three

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<sup>124</sup> Zaboklicki DE 2,904,981 includes a section labeled "List of References" [see pages 19-23 of the provided Zaboklicki DE 2,904,981 translation]. This section not only lists most of the elements which are shown in the Zaboklicki figures but, in many instances, this section provides *additional* details as to how the illustrated elements work and operate; e.g. *additional* details that are not provided within the other sections of the Zaboklicki DE 2,904,981 patent document. For example, the "List of References" section of Zaboklicki DE 2,904,981 explicitly identifies the downloaded "digital processing program" of the Zaboklicki DE 2,904,981 disclosure to be notoriously well known "Telesoftware" (e.g. computer software that was downloaded to the computer of the receiver stations via teletext distribution). Being such, it is significant to note that this "List of References" section of the Zaboklicki DE 2,904,981 does not appear within all of the members of its patent family; e.g. most notably Zaboklicki GB 2,016,874. Thus, applicant's attempt to focus the current issues onto the teachings of Zaboklicki GB 2,016,874, and away from the teachings of Zaboklicki DE 2,904,981, represents nothing less than an attempt to have the significant "List of References" section of Zaboklicki DE 2,904,981 removed from current consideration. The examiner rejects such action as improper.

different media types:

- 1) "moving" video programming segments transmitted, in the form of conventional TV video signal components, simultaneously and sequentially through a pluralities of conventional TV channels;
- 2) audio programming segments transmitted, either in the form of conventional TV audio components or as separate radio signals, through a audio channels which were part of the video signal transmission or, alternatively, through separate radio channels; and
- 3) displayable pages of "teletext" data received in conventional teletext transmission via ones of said pluralities of conventional TV channels.

B) As noted above, the interactive/dialog TV distribution system disclosed by Zaboklicki comprised a plurality of TV receiver stations which included the embodiment that is shown in figure 3 of the Zaboklicki document. This illustrated receiver station comprised four *basic* elements:

- 1) a modified TV receiver (54);
- 2) a modified teletext decoder (56);
- 3) a programmable processor (i.e. elements 6, 7, 39, and 40); and
- 4) a host of peripheral input/output elements (i.e. 23, 34,



35, 37, 50, 51, and 52).

Specifically, these four basic elements of the receiver station are:

1) Said "programmable processor", e.g. the first of said five

*basic* elements, which included:

a) input terminals/ports (39) for receiving various different input signals;

b) output terminals/ports (49) for outputting various different output control signals; and

c) a CPU (6) and RAM (7) for generating the various output control signals based on the different input signals under the control of computer software which had been downloaded to the receiver station, from the transmitter station side, in the form of "Telesoftware"<sup>125</sup>.

2) Said "modified teletext decoder", e.g. the second of said

five *basic* elements, which included:

a) circuitry (36, 40) for extracting the

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<sup>125</sup> Here, it is important to note that:

1) the applied Zaboklicki document explicitly identifies the disclosed "digital processing programming" as having comprised "Telesoftware";

2) the term "Telesoftware" had a specific well known meaning in the art and that this meaning would have been known and understood by those of ordinary skill in the art when reading the Zaboklicki document [e.g. note the publication "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al which was cited by applicant]; and

3) a basic knowledge and understanding of this "Telesoftware" terminology contributed much to understanding and absorbing the teachings of the entire Zaboklicki document.

The point being:

1) that Zaboklicki was written to level of skill in the art that existed at that time; and

2) it is improper for applicant to try to have the Zaboklicki document read/judged in a vacuum.

software/"Telesoftware" that was used to program CPU (6) from received TV programming (25);

b) circuitry (36, 40) for extracting program "fragment" identification codes from the received TV programming wherein the extracted ID codes are used by the CPU, under software/"Telesoftware" control, to identify and/or locate ones of the transmitted program fragments;

c) circuitry (36, 41, 44, 42) for selecting, extracting, and processing pages of teletext data corresponding to desired text/graphics images selected by ones of the control signals provided from the output terminals/ports (49) of the programmable processor;

**3) Said "modified TV receiver", e.g. the third of said five *basic* elements, which included:**

a) at least one internal tuner for tuning to a selected/desired TV channel under control of one of the control signals (27) provided from the output terminals/ports (49) of the programmable processor;

b) an output circuit (55) for outputting the video portion of the selected/desired TV channel to the "modified teletext decoder" in order to locate, extract, and process the teletext

data representing:

1. The downloaded "Telesoftware"/ software use to program the programmable processor;
2. The fragment Identification codes needed by the programmable processor to locate required ones of the transmitted program fragments;
3. The character/graphic codes which are needed to generate the desired displayable teletext images

@42.

c) An audio component on/off device (43) for turning on/off (i.e. selecting) ones of the "additional" audio channels/components based on the control signal that is provided from the output terminals/ports (49) of the programmable processor; and

d) a switcher/multiplexer (45) that controls the display of the displayable teletext images from the teletext decoder (@42) under the control of the control signal that is provided from the output terminals/ports (49) of the programmable processor.

4) The miscellaneous peripheral components , e.g. the fourth of said five *basic* elements, which include:

a) peripheral input elements for inputting signals into the receiver station:

1. a remote control transmitter (23) for providing signals indicative of viewer inputs/responses;
2. An interface unit (34) for providing signals indicative of the user's responses to an input terminal/port (@ 39) of the programmable processor;
3. a introduction circuit for providing "initial viewer data" to an input terminal/port (@ 39) of the programmable processor;
4. a local information storage source (50) which, under control of a control signal that is provided from the output terminals/ports (49) of the programmable processor, provides locally stored video signal fragments and locally stored fragment identifiers to respective inputs of the modified receiver and the programmable processor; and
5. a local video camera (not shown in the figures) which can be used to generate local video for incorporation into the presentation.

#### IV. The Operation of the System Disclosed by Zaboklicki :

Zaboklicki described a television distribution network which operated to transmit a plurality of *interactive* TV presentations to a plurality of TV receiving devices located throughout the TV network. Each of these *interactive* TV presentations comprised the following *basic* components:

- a) Computer software (i.e. transmitted as "Telesoftware"<sup>126</sup>); and
- B) a collection of TV programming "fragments"<sup>127</sup> which, taken together, represented many variations/versions of the same interactive TV presentation (i.e. by selectively receiving and displaying different subsets of the TV programming fragments via a notoriously well known process of "branching", the receivers within the Zaboklicki system were able to "interactively" create different variations/versions of the same presentation<sup>128</sup>).

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<sup>126</sup> The term "Telesoftware" was notoriously well known in the art and was used conventionally within the Zaboklicki document to refer to "computer software" that was transmitted, as "pages" an extended teletext service, in the VBI of the transmitted TV signals [NOTE: items 3, 40, and 41 from the "List of References" which begins on page 19 of the PTO translation of the Zaboklicki document].

<sup>127</sup> Again, it is noted that the transmitted TV programming "fragments" included:

- 1) different segments of motion video which were transmitted simultaneously and sequentially over a plurality of TV channels;
- 2) different segments of audio which were transmitted simultaneously and sequentially over a plurality of audio channels; and
- 3) different teletext pages representing different character and graphic images which were transmitted in the form of packetized teletext pages (i.e. as coded character/graphics data inserted into the VBI of a transmitted TV signal).

<sup>128</sup> The downloaded "Telesoftware" (computer software) provided the intelligence which was needed to select and display (i.e. "branch" through) the respective collection of programming fragments based on the local user's inputs/responses thereby producing a specific presentation that was tailored to the needs/desires of the specific local user.

On the transmitter side, the system disclosed by Zaboklicki operated to transmit the computer software and a collection TV programming fragments that were associated with each of the interactive TV presentations that had been requested by respective ones of the users. On the receiver side, the computer of each receiving device received, loaded, and executed the transmitted computer software which was associated with the interactive TV presentation that had been selected by that user. By running this downloaded software, each computer obtained the instructions/"intelligence" that was needed to identify, select, and display that sequence of the programming fragments which represented the variation/version of the interactive presentation that corresponded to each user's specific inputs and responses. In other words, each receiver used downloaded "Telesoftware" to put together and display a selected sequence of programming "fragments" based on the user's inputs and responses; i.e. specifically, an interactive/"dialogue" multimedia TV presentation whose content was tailored to each of the user's specific inputs/responses.

**V. Contrary to Applicant's Allegations, the Zaboklicki Structures/Elements Were Clearly Described and Enabled** <sup>129</sup>:

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<sup>129</sup> Contrary to applicant's arguments, the examiner maintains that, taken together,  
1) the description provided by the "List of References" which begins on page 19 of the provided Zaboklicki translation,  
2) the figures and the written descriptions pertaining thereto, and  
3) the Zaboklicki claims,  
would have been more than enough to have enabled one of ordinary skill in the art to have understood, made, and used the system which was disclosed by the Zaboklicki document (particularly the figure 3 embodiment which has been relied on in

Given that which is set forth above, the examiner hereby takes the following positions:

1) The examiner maintains that implementing the “third *basic* element” of the receiver stations, e.g. the “modified TV receiver” of the type shown in figure 3 of Zaboklicki, would have been well within the level of one of ordinary skill in the art at the time of applicant’s alleged invention.

Specifically, the examiner maintains that one skilled in the art would have known how to have built a modified TV receiver that was capable of being controlled by externally supplied control signals so as:

- a) to have selectively tuned the receiver to receive and display different TV channels;
- b) to have selectively received and displayed graphic/character images provided from a teletext decoder; and
- c) to have selectively received and outputted sound derived from a plurality of different audio and/or radio channels.

**[THE EXAMINER ASKS: “WHAT IS IT ABOUT THIS MODIFIED RECEIVER STRUCTURE THAT APPLICANT ALLEGEDLY DOES NOT UNDERSTAND AND/OR DOES NOT BELIEVE COULD HAVE BEEN MADE/USED?”]**

2) The examiner maintains that implementing the “second *basic* element” of the receiver stations, e.g. the “modified teletext decoder” of the type

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making present/past section 102 and 103 art rejections).

shown in figure 3 of Zaboklicki, would have been well within the level of one of ordinary skill in the art at the time of applicant's alleged invention. Specifically, the examiner maintains that one skilled in the art would have known how to have built a modified teletext decoder which was capable of receiving, recognizing, decoding, and outputting pages of teletext data representing:

- a) Telesoftware [i.e. computer software];
- b) program "fragment" identifiers; and
- c) displayable character/graphic images.

**[THE EXAMINER ASKS: "WHAT IS IT ABOUT THIS MODIFIED TELETEXT DECODER STRUCTURE THAT APPLICANT ALLEGEDLY DOES NOT UNDERSTAND AND/OR DOES NOT BELIEVE COULD HAVE BEEN MADE/USED?"]**

3) The examiner maintains that implementing the "first *basic* element" of the receiver stations, e.g. a "programmable processor" of the type shown in figure 3 of Zaboklicki, would have been well within the level of one of ordinary skill in the art at the time of applicant's alleged invention. Specifically, the examiner maintains that one skilled in the art would have known how to have built a programmable processor which was:

- a) capable of being programmed via "Telesoftware" (computer software) which was provided from a teletext decoder;
- b) capable of being controlled by the "Telesoftware" (computer



software) to generate & output said control signals that were needed to control said "modified TV receiver" by analyzing/processing:

1. the programming fragment identifier codes provided from the modified teletext decoder;
2. initial user data provided by initialization circuitry; and
3. inputted user responses/inputs.

[THE EXAMINER ASKS: "WHAT IS IT ABOUT THIS PROGRAMMABLE PROCESSOR STRUCTURE THAT APPLICANT ALLEGEDLY DOES NOT UNDERSTAND AND/OR DOES NOT BELIEVE COULD HAVE BEEN MADE/USED?"]

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**SO THAT THERE IS NO MISUNDERSTANDING,**  
**APPLICANT IS HEREBY ASKED TO SPECIFICALLY**  
**IDENTIFY THOSE CONCEPTS/STRUCTURES OF THE**  
**ZABOKLICKI FIGURE THREE RECEIVER STATION**  
**EMBODIMENT/SYSTEM, AS APPLIED AGAINST THE**  
**PENDING CLAIMS WITHIN THIS OFFICE ACTION, THAT**  
**APPLICANT IS STILL ALLEGEDLY UNABLE TO**

GRASP/UNDERSTAND; I.E. A ZABOKLICKI FIGURE  
THREE SYSTEM/EMBODIMENT WHICH HAS BEEN  
DISCUSSED/ADDRESSED/EXPLAINED BY THE EXAMINER  
IN AGONIZING DETAIL THROUGHOUT THE PRESENT  
PROSECUTION <sup>130</sup>.

ALTERNATIVELY, IF APPLICANT NOW UNDERSTANDS  
AND GRASPS THE CONCEPTS/STRUCTURES OF THE  
ZABOKLICKI FIGURE THREE SYSTEM AS  
DISCUSSED/APPLIED WITHIN THIS OFFICE ACTION,  
THEN APPLICANT IS SPECIFICALLY ASKED TO IDENTIFY  
THOSE OF THESE CONCEPTS/STRUCTURES WHICH  
APPLICANT FEELS COULD NOT HAVE BEEN MADE, USED,  
AND/OR PRACTICED BY ONE OF ORDINARY SKILL IN  
THE ART AT THE TIME OF APPLICANT'S ALLEGED  
INVENTION <sup>131</sup>.

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<sup>130</sup> Note Appendix II of this Office action.

<sup>131</sup> Applicant continues in his attempt to have the Zaboklicki reference removed from consideration by characterizing this reference as being:

"so vague and indefinite in its description of *the technology* that virtually any reliance on the publication as prior art in the instant application can only be based on speculation and conjecture....[it] is not an enabling publication."

The examiner notes that "*the technology*" utilized by the Zaboklicki invention, (namely: teletext technology; "Telesoftware")

AND FINALLY, IF APPLICANT NOW UNDERSTANDS  
AND GRASPS THE CONCEPTS/STRUCTURES OF THE  
ZABOKLICKI FIGURE THREE SYSTEM AS  
DISCUSSED/APPLIED WITHIN THIS OFFICE ACTION, AND  
IF APPLICANT NOW AGREES THAT THESE  
CONCEPTS/STRUCTURES WOULD HAVE BEEN  
ADEQUATELY DESCRIBED/ENABLED BY THE  
ZABOKLICKI DISCLOSURE AT THE TIME OF  
APPLICANT'S ALLEGED INVENTION, THEN APPLICANT IS  
ASKED TO SPECIFICALLY IDENTIFY THOSE FEATURES  
OF THE PENDING CLAIMS WHICH ALLEGEDLY  
DISTINGUISH THE CLAIMS OVER THE ZABOKLICKI  
SHOWING.

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VI. Zaboklicki applied against claim 75:

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technology;<sup>6</sup> "dialogue"/interactive television technology; and TV receiver technology). were all notoriously well known in the art at the time that the Zaboklicki disclosure was written that there simply was no need for this to have been regurgitated within the Zaboklicki disclosure itself. Once again, applicant has improperly attempted to have the Zaboklicki disclosure viewed in the context of a vacuum rather than the context of the level of skill in the art within which it was originally written [e.g. NOTE: U.S. Patent #4,634,386 to Tamakki; U.S. Patent #3,008,000 to Morehand; the 1/2001 PTO translation of document DE 2,550,624; the article "TELESOFTWARE-VALUE ADDED TELETEXT" by Hedger et al.; etc....].

a. With respect to the preamble of claim 75 (i.e. lines 1-10 of claim 75), the following is noted:

1) Zaboklicki disclosed a system which communicated/transmitted/delivered an interactive video presentation (i.e. the recited "information transmission") to a plurality of receiver stations [note lines 9-12 on page 10 of the translation].

2) Zaboklicki disclosed a system which comprised a plurality of receiver stations each of which had the structure illustrated in figure 3 and included: a "signal receiver" (i.e. including the tuner of TV receiver 54); a "signal detector" (i.e. including element 36); a "targeted processor" (i.e. including CPU 6); and an "output device" (i.e. the TV receiver 54).

3) Zaboklicki disclosed a system which comprises said plurality of receiver stations which: 1) were adapted to detect at least one "control signal" such as the signals representing the transmitted program "fragment identification information", teletext "page numbers", etc,...[note lines 20-26 on page 15 of the translation]; and 2) were programmed to process "downloadable processor instruction" (i.e. the CPU 6 of each receiver was configured/programmed to load and run downloadable instructions comprised of "Telesoftware") [note lines 18-26 on page 21 of the translation].

4) Zaboklicki disclosed a system which provided the interactive video presentations comprising at least: 1) "a first video image" (i.e. the displayed image that is derived from the video signal fragments which were provided

from a remote transmitter station via a plurality of conventional TV channels ) [note lines 1-4 on page 12 of the translation]; and 2) a “second video image” (i.e. the displayed image that is generated from received teletext character/graphic codes) [note lines 21-25 on page 11 of the translation]. It is noted that all of the displayed fragments for the same interactive video presentation are displayed “in conjunction” with each other so as to create the interactive presentation and, being such, each displayed fragment acts to “complete” and “supplement” all other displayed fragments.

B. With respect to the body of claim 75 (i.e. lines 11-24 of claim 75), it is noted that Zaboklicki disclosed a system which included:

1) means for providing the “Telesoftware” that is required for a given interactive video presentation to the “first transmitter station” (i.e. *obviously*, the required “Telesoftware” must be provided to the transmitter station by some type of teletext data source and database before it can be transmitted by said first station as teletext data);

2) means for transferring the provided “Telesoftware” to a transmitter (i.e. inherent in the fact that the “Telesoftware” is transmitted to the receiver stations from the first transmission station);

3) means for providing the “page numbers” and the “fragment identification information” that are required for a given interactive video

presentation to the “first transmitter station” (i.e. *obviously*, the required “page numbers” and the “fragment identification codes” must be provided to the transmitter station by some type of data source before they can be transmitted by said first station);

4) means for transferring the provided “page numbers” and the “fragment identification information” to the transmitter (i.e. inherent in the fact that the “page numbers” and the “fragment identification information” were transmitted to the receiver stations from the first transmission station); and

5) means for transmitting an information transmission comprising the “Telesoftware”, the “page numbers”, and the “fragment identification information” to said receiver stations (i.e. all of these signals are transmitted as part of each transmitted interactive presentation) [note lines 20-26 on page 15 of the translation].

88. Claims 76-79 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2,904,981] for the same reasons that were set forth for claim 75 above.

89. Claim 93 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2,904,981] for the same reasons that were set forth for claim 75

above.

Claim 93 differs from the showing of Zaboklicki only in that Zaboklicki did not specify how the *program fragments* which were comprised of teletext pages were displayed relative to the program fragments which were comprised of video broadcast segment; i.e. whether the teletext data was overlaid over the video segments (i.e. simultaneously) or whether the teletext data was displayed in place of the video segments (i.e. sequentially). Claim 93 requires that the data be overlaid or cut into the video programming.<sup>132</sup>

When displaying teletext data, the examiner takes Official Notice that it was notoriously well known in the art to have displayed the data over video programming or in place of the video programming.<sup>133</sup> The examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented Zaboklicki so as to have allowed the teletext data to have been displayed in the conventional way; i.e. either simultaneously or sequentially.

90. Claims 94-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2,904,981] for the same reasons that were set forth for claim 93 above.

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<sup>132</sup> It is noted, however, that this subsequently introduced claim recitation is not supported by applicant's 1987 disclosure as originally filed for reasons that were fully addressed above (see "EXAMPLE #1" in the second paragraph under the "SECTION X" of this Office action). Being such, this claim limitation is being addressed "herein" only for the sake of completeness.

<sup>133</sup> For example: lines 19-64 of US Patent #4,388,639 to Cox et al.; the last 8 lines in the first column on page 1381 of the article to Beakhust et al.; lines 12-28 in column 1 and lines 46-53 in column 3 of US Patent #4,218,698 to Bart et al.; cover page of JP #55-79585 to Sakimichi et al.; etc....

91. Claims 162-166 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zaboklicki [DE 2,904,981] for the same reasons that were set forth for claim 75 above.

92. Claim 179 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058].

I. The showing of Oono et al.:

As is shown in figure 3 of the translation, Oono et al. disclosed a receiver station (i.e. a "*home terminal*") which was capable of outputting a graphic presentation representing a computer/software generated video game [note lines 6-17 on the fourth page of the translation]. The receiver station comprised:

a) An input ("d") for receiving, from a remote TV transmitting station, a transmission ("e") that comprises insertion/ancillary signals superimposed onto a TV signal wherein: 1) the video portion of the TV signal comprised a series of video images; and 2) the insertion/ancillary signal comprised a *first discrete signal* portion (i.e. represented by "F" of figure 2) and a *second discrete signal* portion (i.e. represented by "C"- "E" of figure 2);

B) Means (5,6,7) for passing the video and audio portions ("a") of the TV signal to a video monitor for display thereon;

C) Means (2,8) for detecting and passing both the first and the



second discrete signal portions of the insertion/ancillary signals to a processor (i.e. @ 3);

D) Means (@3) for organizing the first discrete signal portion of the insertion/ancillary signals in accordance with the second discrete signal portion of the insertion/ancillary signals [note lines 11-18 on the ninth page of the translation];

E) a microprocessor, contained within processing element "3", for responding to (i.e. executing/running) processing instructions (i.e. the computer program/software) represented by the organized first discrete signal portion [note lines 14-18 on the ninth page of the translation];

F) Means (4, 5, 7) for passing a second completed full screen video graphics image (i.e. the video game) to the video monitor for display thereon.

## II. Differences:

Claim 179 differs from the showing of Oono et al. only in that Oono et al. did describe an operation of his system in which the "video game" was overlaid over the video portion of the received TV signal; i.e. a video game mode in which the switch (5) was set to output video signal "V2" instead of video signal "V1".

## III. The showing of Matsushita and Rausch:

Matsushita and Rausch have been cited because they evidence the obviousness of having overlaid a computer generated video game signal over top of the video

portion of an externally provided TV signal [note: the cover page of Matsushita; and lined 24-27 of the ABSTRACT of Rausch]. At least Rausch evidences the fact that the externally provided TV signal was known to have comprised a broadcasted TV signal [note lines 37-49 of column 19] comprised of *graphic* images/backgrounds for such video games [note lines 1-7 of column 5 and lines 47-53 of column 14].

#### IV. Obviousness:

In view of the teachings found in Matsushita and Rausch, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have modified at least some of the “video games” provided by Oono et al. so as to have used the video portion of a received TV signal to provide the *graphics* image backgrounds over which the locally produced video game images were to be displayed/overlaid “in conjunction” thereto; i.e. simply by configuring Oono et al. to select its already available combined video signal mode “V2”, in place of its normal video game signal mode “V1”, for these added video games.

93. Claims 180-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 179 above.

94. Claims 177 and 178 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 179 above. The following is noted:

1) The recited "instructs signals" correspond to the insertion/ancillary signals of Oono et al. which are used to generate the second video graphics images (i.e. the video game); and

2) In order to have received, extracted, generated and displayed the graphic presentation (i.e. "a") from the TV signals and insertion/ancillary signals of the information broadcast/transmission ("d"), the examiner maintains that the receiver station shown in figure 3 of in Oono et al. must have comprised: one or more receivers for receiving the information broadcast/transmission, for receiving the TV signal component of the information broadcast/transmission, and for receiving the insertion/ancillary signal component of the information broadcast/transmission; one or more signal detectors for detecting the information broadcast/transmission, for detecting the TV signal component of the information broadcast/transmission, and for detecting the insertion/ancillary signal component of the information broadcast/transmission; and one or more processors for processing the information broadcast/transmission to create the desired graphics presentation, for processing the TV signal component of the information broadcast/transmission to create the desired graphics presentation, and for processing insertion/ancillary signal component of the information broadcast/transmission to create the desired graphics presentation. More

specifically, it is the examiners position that any/all receivers which receive and display video information derived from a broadcasted TV signal transmission must have comprised: the reception circuitry that was inherently required to receive the broadcasted TV signal transmission; the detecting/decoding circuitry that was inherently required to detect and extract the required signal components (video, audio, and insertion/ancillary signal components) from the broadcasted TV signal transmission; and the processing circuitry that was inherently required to convert the detected and extracted signal components into a displayable presentation. To suggest that a TV signal receiver and display device does not or might not comprise such essential receiver circuitry is to, at best, offer an unrealistically low level of skill in the art.

95. Claims 175 and 176 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 177 and 178 above. The following is noted:

a) The examiner maintains that, as was addressed above, the insertion/ancillary signals described in Oono et al. transmitted discrete signals representing discrete packets of packetized data wherein each packet comprised a discrete information signal portion (i.e. "F" in figure 2 of the translation) and a discrete control signal portions (i.e. "C"- "E" in figure 2 of the translation [see: figures 1 and 2 of the translation]. As was also noted above, the information portion of the

insertion/ancillary signals carried **respective portions** of the software which were used to instruct/program the computer of the receiver station to perform processing required to achieve a desired/requested application; e.g. such as the execution and presentation of a desired/requested video game.

B) Given the above, the examiner maintains that the recitations of claim 175 differ from the issues previously addressed for claims 177 and 178 above only in that claim 175 includes further limitations directed to operations performed on the transmitter side of the system. More specifically, claim 75 specifies that the TV signal and the insertion/ancillary signals were received at an origination station and were then delivered to the transmitter of the origination station for broadcast. Again, the examiner maintains that such processing features represent nothing more than essential components of any TV station which generated and embeds insertion/ancillary signal into its TV signal transmissions. To suggest otherwise is, at best, to offer an unrealistically low level of skill in the art.

96. Claims 171-174 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and 176 above.

97. Claims 167-170 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsushita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and

176 above. The following is noted:

- a) The examiner notes that the downloaded software in Oono et al. constitutes, by definition, downloadable code.

98. Claims 162-166 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsusshita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and 176 above.

99. Claims 152-156 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsusshita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and 176 above.

100. Claims 143-151 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsusshita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and 176 above.

101. Claims 142 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oono et al. [JP 55-28691] in view of Matsusshita [JP 55-26792] and Rausch [US Patent #3,778,058] for the same reasons that were set forth for claim 175 and 176

above.

102. Claims 56-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over the "WEATHER STAR" system/receiver technology as was set forth in Galumbeck et al. [US Patent #4,725,886] and the 8/81 article "Landmark forms cable weather news network" of *EDITOR & PUBLISHER* (i.e. as submitted by applicant - see APPENDIX VIII attached hereto). The following is noted:

1) As has been addressed fully earlier in this Office action, the examiner maintains that the pending claims are not entitled to the alleged 1981 priority date of applicant's parent application [note "SECTION I" of this Office action]. Therefore, the intervening art of Galumbeck et al. constitutes "prior art" against that which is now claimed given its 1983 filing date.

2) As understood by the examiner, applicant has acknowledged/admitted that the currently pending amended claims allegedly/obviously encompass the "WEATHER STAR" system/receiver technology that described in both Galumbeck et al. [US Patent #4,725,866] and the *EDITOR & PUBLISHER* article.

3) In light of that which has been set forth in part "1)" and part "2)" of this paragraph, the examiner maintains the scope of each of applicant's currently pending amended claims are obviously, if not inherently, be met by the showing of Galumbeck et al. and the *EDITOR & PUBLISHER* article; i.e. the record suggests that the pending claims were intentionally drafted to encompass the subject matter of the "prior art" that was disclosed in the Galumbeck et al. and the *EDITOR & PUBLISHER* article.

103. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known hybrid Videotext broadcast system structure as described in the article "Videotex Services via CATV-Hybrid Systems Approach" by Dages in view of which is illustrated in the showing of Oono et al. [JP 55-028691].

I. Preface to the Rejection:

The examiner takes *Official Notice* that "teletext" data *typically*<sup>134</sup> comprised coded control/character/graphic data which was transmitted in the VBI of conventional television signals as series of instructions. Specifically, as transmitted, coded teletext data did not comprise displayable pixel/image data. Rather it comprises sequences of control/character/graphic codes/instructions which, when processed by a teletext decoder, identified how and where ones of a plurality of locally stored pixel patterns were to be displayed on the receiver side of the system in order to produce a desired image/display. Namely, each sequence of the transmitted teletext control/character/graphics codes identified how ones of the locally stored pixel patterns were to have been retrieved from memory and assembled, e.g. via a character generator, to generate the desired displayable image at the receiver.<sup>135</sup>

In light of the preceding discussion/showing, it is clear that an

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<sup>134</sup> The examiner acknowledges that in very rare circumstances, e.g. when transmitting thousands of different Chinese characters, teletext data was known to have comprised displayable pixel data. This, however, is a rare exception.

<sup>135</sup> SEE: the description of "Teletext" as was set forth in the last 16 lines on page 5 of the appendix that was attached to the "PETITION FOR RULEMAKING" that was filed with the FCC on 3/26/1981 by the "United Kingdom Teletext Industry Group".



image generated from a series and or sequence of received teletext control/character/graphic codes/"instructions" falls within a fair reading of the "*locally generated image*" terminology.

## II. The showing of Dages:

The examiner takes Official Notice that it was notoriously well known in the Videotext art that Teletext distribution systems and Viewdata distribution systems had respective advantages and disadvantages. Namely, that:

- 1) Viewdata systems used a dedicated phone line to connect each user with the server which was advantageous to the extent that it enabled true user-to-server two-way interaction; i.e. giving each user instant access to an essentially unlimited database via user requests;
- 2) This use of the dedicated phone line connections for each user was disadvantageous in that each user had to individually pay a fee for use of his dedicated phone line connection in addition to the subscription fee for the Viewdata service itself;
- 3) Teletext systems were disadvantageous in that the one-way nature of their non-dedicated TV channel connections enabled only pseudo interactive filtering of a cyclically transmitted teletext thereby restricting the size of the database which could be accessed at any point in time; and
- 4) Teletext systems were advantageous in that they were *add-on* systems which used an existing non-dedicated wideband TV channel to distribute

information to all subscribers and thus were relatively inexpensive to implement per user.

As evidenced by Dages, those of ordinary skill in the art recognized the obviousness of having combined the advantages provided by Teletext and Viewdata systems into a single *hybrid* Videotext distribution system which:

- 1) used a non-dedicated telephone connection as a return link for transmitting subscriber requests for desired Videotext pages from the subscriber terminal/receiver stations to a Videotext service provider station; and
- 2) used the VBI or full channel of existing TV channels for transmitting the requested Videotext pages from the Videotext service provider station to the subscriber terminal/receiver stations.

[NOTE THE THIRD FULL PARAGRAPH ON PAGE 23 of Dages].

### III. The showing of Oono et al.:

Oono et al. has been cited as evidencing, in detail, the structure of a subscriber terminal/receiver station which was used within a conventional two-way *hybrid* Videotext distribution systems. More specifically, the subscriber terminal/receiver station described in Oono et al. comprised the following structures:

- 1) a keyboard (9 of figure 3) which included various operating keys (see figure 4) wherein:

a) one of the keys (i.e. key 11) was used for the purpose of establishing an a telephone connection (i.e. via interface 10 of figure 3) between the terminal/receiver station and the Videotext provider's station ; and

b) a plurality of the keys (i.e. @ 18 of figure 4) were used for the purpose of inputting coded requests for desired Videotext data which inputted requests were then transmitted to the Videotext provider's station via the established telephone connection;

2) receiving circuitry (i.e. RF converter 1 of figure 3) for receiving a broadcasted video signal (i.e. a of figure 1) into which the requested Videotext data (i.e. B of figure 1) had been embedded during, for example, the VBI period;

3) data separating and decoding circuitry (i.e. 2 and 3 of figure 3) for extracting the requested Videotext data from broadcasted video signal when the terminal/receiver station address data contained in the Videotext data (i.e. D of figure 2) matched the terminal/receiver station address data stored within the terminal/receiver station itself [note lines 8-11 on page 8 of the translation]; i.e. wherein this extracted Videotext data comprised any of "software data" for controlling the operation of the microcomputer (3 of figure 3) [note lines 8-14 on page 8 of the translation], "superimposed data" to be superimposed over a displayed video portion of the broadcasted

video signal [note lines 8-21 on page 8 of the translation], and  
“picture data” representing Videotext page which was to be  
displayed by itself [note lines 8-26 on page 8 of the translation].

### III. Obviousness:

The examiner maintains that it would have at least been an obvious choice of design to have implemented the user/receiver stations of the *hybrid* Videotext distribution system described in Dages using the conventional hybrid Videotext terminal/receiver station structure described by Oono et al.:

- 1) wherein the conventional terminal/receiver station structure described by Oono et al. explicitly operated to output a *combined video presentation*<sup>136</sup> by superimposing *locally generated* Videotext images over the video portion of the broadcasted video signals; and
- 2) wherein the locally generated Videotext images were explicitly generated from the received “superimposed data” that had been transmitted from the Videotext provider’s station as a teletext data transmission (i.e. implicitly indicating the presence of an

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<sup>136</sup> The examiner maintains that a *combined presentation* is produced by the receiver/terminal whether or not the superimposed Videotext information is related to the broadcasted video signal [i.e. as currently drafted, the claim fails to positively recite/require any type of relationship between the displayed data and signal]. However, it is noted that even if such a relationship had been recited, providing program related Videotext which completes or supplements the video over which it was overlaid was in fact notoriously well known in the art as evidenced by the article “Teletext Systems: Considering the Prospective User” by Ciciora [note: the discussion under the heading “Supplementary Overlays” on page 848].

intermediate television broadcast station) on the basis of the inputted requests for desired Videotext data which were communicated from the receiver/terminal station, to the provider's station, via the established telephone connection.

Such a *hybrid* Videotext system, and *hybrid* Videotext system operation, clearly meets all of the limitations of claim 56: e.g. 1) a user inputs a request for "superimposed data" via his interactive terminal device; 2) the request is then transmitted from his terminal device to a remote data source via a phone line; 3) the remote data source transmits the requested "superimposed data" to the user's terminal in the form of Videotext data embedded in the VBI of distributed TV programming; 4) the interactive terminal device receives the requested "superimposed data" and processes it in order to produce a "locally generated" a image; and 5) the interactive terminal device then "superimposes" the locally generated image over TV programming that has been received from a remote video/TV signal source (the "superimposed data" thereby serving as "a basis" for the combined/"superimposed" video presentation).

104. Claims 57-74 and 89-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over notoriously well known hybrid Videotext broadcast system structure as described in the article "Videotext Services via CATV-Hybrid Systems Approach" by Dages in view of which is illustrated in the showing of Oono et al. [JP

55-028691], for the same reasons that were set forth above for claim 56 above.

105. Claims 56-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over "prior art" TV distribution networks as appears to have been acknowledged by applicant's own originally filed disclosure (and as is now illustrated in the showing of the US Patent #4,025,851 to Haselwood et al. ), when such "prior art" television networks were desirably modified so as to have "centrally" distributed well known digital ancillary/insertion signals pertaining to one or more of the notoriously well ancillary/insertion signal applications. Such well ancillary/insertion signal applications are listed, somewhat exhaustively, within the applied prior art of:

- 1) the publication "A System of Data Transmission in the Field Blanking Period Of the Television Signal" by P R Hutt;
- 2) the publication "The Vertical Interval: A General Purpose Transmission Path" by Ted V. Anderson;
- 3) the publication "Vertical Interval Signal Applications by Harry A Etkin;
- 4) the publication "Ad Hoc Committee on Television Broadcast Ancillary Signals" by Robert A. O'CONNOR;
- 5) the publication "ANCILLARY SIGNALS FOR TELEVISION-INNOVATIONS AND IMPLICATIONS" by the U.S.

**Overview of Rejection:**

Applicant's 1981 parent application set forth a TV distribution network in which coded cuing signals and coded program identification signals were distributed, within the VBI of TV programming, to various remote locations of the TV network. In contrast, applicant's present 1987 disclosure represents a more sophisticated system in which a packetized data structure called "SPAM" (e.g. "extended teletext") was used as a common transport vehicle for carrying a wide assortment of coded information throughout the television network within, e.g. at least "preferably", the VBI of the TV programming being distributed by the TV network. When viewed broadly, the examiner maintains that applicant's 1987 alleged inventions (at least in concept) was neither new, novel, nor non-obvious over the "prior art" of its day. Specifically, the examiner takes the following positions:

1) That television programming distribution networks having applicant's claimed station configuration were notoriously well known in the art at the time of applicant's alleged invention [a fact that appears to have been acknowledged by applicant's own disclosure]. Specifically, the examiner maintains that it was notoriously well known in the art for television networks to have been comprised of origination stations, intermediate stations, and ultimate receiver stations as currently claimed by applicant's

pending amended claims;

2) That it was notoriously well known in the art for such 'prior art' programming distribution network configurations to have been modified so as to have included appropriate auxiliary/insertion data encoding/decoding circuitry which allowed information pertaining to a wide variety of well known ancillary/insertion signal applications to be distributed to stations throughout such networks; and

3) That it was known to have used an "all-purpose" packetized data structure which was, "preferably", embedded within the VBI of the network's distributed TV programming as the vehicle for distributing the auxiliary/insertion information; i.e. wherein "extended teletext" was the most widely recognized form of such an "all-purpose" packetized data structures.

Evidence supporting the examiner's position will be provided/addressed in the "formal" rejection which follows.



**“Formal” Rejection:**

**I. TV Networks That Comprised Applicant’s  
Disclosed/Claimed TV Station Configuration Were In  
Fact Conventional Systems:**

The examiner maintains that it was notoriously well known for a *typical* National Television network to have comprised :

- 1) Some sort of central or network TV station for originating network or national TV programming;
- 2) Some sort of intermediate TV stations (regional and or local) for receiving the network/national TV programming and for selectively relaying the programming, i.e. “bridging” it, to other “downstream” intermediate and/or to ultimate receiver TV stations serviced by the respective intermediate TV station. Each of these intermediate TV stations *typically* included matrix switching circuitry for “bridging” the national programming to its output/transmitter and for inserting its own locally originated TV programming (i.e. regional/local advertisements and programming) into portions of the TV programming being received from the “upstream” stations.

Haselwood et al. has been cited as at least being illustrative of such this conventional TV network configuration. Namely, as is illustrated in figure 1, Haselwood et al. exemplifies a conventional TV network configuration

which *typically* comprised:

1) a network TV broadcast station (i.e. @ 10, 12, 14, 22)

comprised of a source of network TV programming (i.e.

represented by camera 10);

2) a network feed (16) which allowed the network TV

programming to be broadcast/distributed to affiliated local TV

stations (i.e. 18); i.e. wherein, as shown in figure 3 of Haselwood et

al., said affiliated local TV stations comprised:

A) a source of local TV programming;

B) a switch (i.e. "selector" 46) for: receiving the local TV programming from the local source (44); receiving the network TV programming from the network feed (16); and for outputting either the received local programming or the received network programming to a transmission line (50); and

C) a transmitter 42 for receiving the selected TV programming from the transmission line and for broadcasting the selected TV programming to household receiver location/stations for processing and display (not shown in the figures).

Knowledge of, and familiarity with, such conventional TV network configurations appears to be the state-of-the-art on which applicant's own disclosure, as originally filed, builds [e.g. note lines 21-35 on page 20 and

lines 1-4 on page 21 of applicant's originally filed 1987 disclosure],

## **II. Conventional ancillary/insertion signal distribution**

**systems:**

A) The examiner notes that those of ordinary skill in the television distribution art, at the time of applicant's alleged invention, had long been incorporating ancillary/insertion signaling into existing TV distribution networks. To provide this desired ancillary/insertion signaling, it was necessary to have modified the existing TV distribution networks with required encoding/inserting and decoding/extracting circuitry which was needed to distribute coded ancillary/insertion signaling between respective point/stations of the network. These transmitted ancillary/insertion signals were used to carry display information as well as information for controlling and monitoring the operation of remote devices located throughout the networks. Modifying television networks to carry the coded ancillary/insertion signaling in this manner, e.g. within the VBI of the distributed TV programming, was recognized as having been advantageous in that it created the desired *add-on* signaling channel without a significant increase in cost and overhead; i.e. most importantly, the modification

eliminated the need for separate distribution network for the signaling (i.e. such as the need for dedicated telephone lines). To this point, the examiner notes that the current record is simply overflowing with cited prior art which not only described the methods and means for modifying conventional television distribution in order to distribute the ancillary/insertion signals within the VBI of the distributed TV programming, but which also set forth enumerated lists of desired signaling applications which could be practiced by such methods and systems. Such known and desired signaling applications included:

- 1) source/network identification;
- 2) identifying the destination of a transmission;
- 3) distributing switching and routing instructions;
- 4) transmitting captions to special domestic receivers;
- 5) distributing regional news and weather services;
- 6) distributing teletext services such as "*ORACLE*";
- 7) the remote control of unattended VTRs located at either the intermediate or the ultimate receiver stations;
- 8) program monitoring (use and/or transmission verification);
- 9) selective user/affiliate station communication and addressing;
- 10) distributing program guides;
- 11) remote control of program switching;
- 12) distributing cuing information;
- 13) etc, ...

[SEE: APPENDIX IV of this Office for specific citations to the applied "prior art"].

B) The examiner also notes that, in order to transport these various well known types of ancillary/insertion signals in the VBI of the distributed TV programming, those skilled in the art had recognized the need/desire for an adequately field tested "all-purpose" digital data signal as the universal transport vehicle for the ancillary/insertion signaling/data/information <sup>137</sup>. Specifically, the prior art of record evidenced the obviousness and/or desirability of having used an "all-purpose" data signal as a common vehicle by which all types of ancillary/insertion signaling were to have been carried through the modified television distribution network. One known form of such an "all-purpose" data transport packet being the packets of "extended" teletext services wherein such packets were used, early on, to transport data pertaining to a wide host of applications which extended well beyond displayable teletext pages (e.g. the transport of "Telesoftware" codes).

C) Further, the examiner further notes that the applied "prior art" evidences the fact that those of ordinary skill in the art knew/understood

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<sup>137</sup> SEE: Section "(c)" under the heading "II. General Considerations Relating to the Allocation and Use of Vertical Interval Space" on page 1019 of the publication "Ad Hoc Committee on Television Broadcast Ancillary Signals" by Robert A. O'CONNER as published in December of 1973 in the Journal of the SMPTE, Volume 82: Figure 38 and lines 11-17 in the first column on page 40 of the previously cited P R Hutt publication entitled, "A System of Data Transmission in the Field Blanking Period of the Television Signal"; etc, ...

that software driven ancillary/insertion signal decoding circuitry had significant advantages over decoding circuitry implemented in hardware for teletext ancillary/insertion signal applications. Specifically, the prior art explicitly taught that software driven/implemented teletext decoding circuitry was advantageous in that it was adaptable and was easily upgraded [note: lines 50-55 and 70-73 on page 1 of UK Patent Document #1,556,366 to William Robert Betts]. While not explicitly stated, the examiner maintains that it would have been obvious to one of ordinary skill in the art that the advantages of software driven/implemented decoding circuitry obviously applied to the other ancillary/insertion signal applications too (i.e. such as "extended" teletext applications) .

### III Obviousness:

It is maintained that Haselwood et al. not only exemplifies the TV station configuration of "prior art" TV networks on which applicant's own disclosure was clearly based (note section "II" above), but that the invention which was actually disclosed/claimed by Haselwood et al. In fact "modified" the conventional TV network configuration so as to have included encoding and decoding circuitry which allowed digitally encoded ancillary/insertion signals to be transported throughout the network via the VBI of the distributed TV programming <sup>138</sup>; i.e. wherein the digitally

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<sup>138</sup> In fact, in the case of Haselwood et al., a monitoring ancillary/insertion signaling application has already been added to the illustrated TV network configuration [note elements 12, 14, 22, 28 30, and 32 of figures 1 and 3].

encoded ancillary/insertion of the Haselwood et al. invention represented a program monitoring application.

However, given the showing of Haselwood et al., the examiner maintains that it would have been obvious to one skilled in the art to have "further modified" these same conventional TV station network configurations with general-purpose encoders/decoders so as to have allowed the transport/distribution of ancillary/insertion signals pertaining to others of the notoriously well known ancillary/insertion signaling applications which were, quite literally, listed throughout cited/applied prior art of record (note section "III" of this paragraph). Implementing this required general purpose encoding/decoding circuitry using a software driven processors (i.e. CPUs), represented nothing more than an advantageous upgrade of technology as evidenced in the showing of Betts (i.e. software implementations were known to have had advantages over the use of dedicated hardware).

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In applying this rejection to the pending claims, the following is noted:

A) The examiner maintains that the pending claims are riddled:

1) with confusing, repugnant, indefinite, undefined, and unsupported terminology [see the section 112-1 and the section 112-2 problems which have set forth above]; and

2) with "*straw men*" [see the discussion under the heading

" II. APPLICANT'S ALLEGED INVENTION:" in the

preceding paragraph of this Office action].

Trying to address claims with such extensive section 112 problems under sections 102 and 103, as evidenced in the preceding 102 and 103 rejections of this Office action, represents an extremely difficult undertaking on the part of the examiner because the examiner is forced to explain how he/she has attempted to decipher the recitations of a pending before he/she can even begin to explain how the cited prior art has been applied against such deciphered limitations. For the purpose of the present rejection, the examiner has chosen to focus his efforts on addressing what he believes applicant must be claiming given the section 112-1 support which is available to applicant via his originally 1987 disclosure. That is to say, for the purpose of the present rejection, the examiner has given more weight to his best guess as to what applicant must be claiming via his amended pending claims, than he has given to formally explaining how the confusing, repugnant, indefinite, undefined, and unsupported language of the claims (i.e. the "straw men") have been deciphered. But for the sake of completeness, the pending claims have also been addressed by the examiner using the latter approach in the paragraphs/rejections above. However, even there, the present rejection might be helpful in setting forth the broad picture and understandings on which these previous rejections were based.

B) Again, as best understood by the examiner, applicant's present 1987 disclosure described a television broadcast/distribution system in which the



VBI of distributed network TV programming was used (i.e. "preferably") as a transmission path for carrying and distributing information/data pertaining to a wide variety of monitoring, control, and enhancement functions. More specifically, it is the examiner's understanding/belief that applicant's present 1987 disclosure actually represented applicant's own implementation of an ancillary/insertion signal transmission system in which applicant's own version of digital ancillary/insertion signals, e.g. his described "SPAM" message packets, were inserted into the VBI of the distributed TV programming and were used as the vehicle by which the information/data, pertaining to said wide variety of monitoring, control, and enhancement functions, were transported to receiver stations serviced by the television network. In summary, as best understood, the examiner maintains that what applicant now attempts to claim was met by the applied prior of record for the following reasons:

1) It is the examiner's position that applicant's disclosed/claimed "origination station", "intermediate station", "ultimate receiver station" configuration represented nothing more than the known/typical station configuration that was found within conventional TV distribution networks at the time of applicant's alleged invention. More specifically, the examiner maintains that conventional TV distribution networks, at the time of applicant's alleged invention, comprised:

A) a central/network TV station (i.e. corresponding to

applicant's "origination station");

B) intermediate/affiliated/headend TV stations (i.e. corresponding to applicant's "intermediate stations"); and  
C) household/subscriber TV stations/terminals/receivers (i.e. corresponding to applicant's "ultimate receiver stations").

While the examiner has applied Haselwood et al for its explicit showing of such conventional network configurations, the examiner notes that applicant's own disclosure, at least implicitly, appears to have acknowledged this configuration to be "prior art".

2) It is the examiner's position that applicant's disclosed/claimed "SPAM" signal transmissions, when carried in the VBI of the distributed TV programming, represented nothing more than applicant's own version of known/conventional ancillary/insertion signal transmissions (i.e. "extended" teletext). To the extent of the examiner's understanding, this correlation continues right down to the specific signaling applications which have been disclosed/recited in the claims;

3) It is the examiner's position that applicant's disclosed/recited digital format of the disclosed/recited "SPAM" message packets implicitly corresponds to the digital format of conventional

ancillary/insertion signals when carried as a conventional/desirable general-purpose digital data signal (e.g. such as "extended" teletext data packets); and

4) It is the examiner's position that implementing conventional ancillary/insertion signal receiving circuitry via a software driven encoder and decoder configurations represented nothing more than an obvious and advantageous upgrade of technology (i.e. early encoders/decoders were implemented using arrangements of dedicated hardwired processing blocks whereas, by the time of applicants alleged invention, the advantages of software driven encoder/decoder implementations had been achieved and recognized).

106. Claims 56-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haselwood et al. [US Patent #4,025,851] and the publication entitled "TELETEXT SIGNAL GENERATION EQUIPMENT AND SYSTEMS" by Mothersole in view of: Betts [GB 1,556,366], the "VIRDATA" publication, and the publications by Chambers, Gunn et al., Hutt, Anderson, and Barrett [US Patent # 4,205,343]. The following is noted:

I. Conventional TV broadcast Systems as Illustrated by the Showing of

Haselwood et al. [US Patent #4,025,851]:

Haselwood et al. has been cited for its illustration of a conventional TV broadcast network. As is shown in figure 1, the broadcast network comprised: 1) a network TV broadcast station (i.e. @ 10, 12, 14, 22) comprised of a source of network TV programming (i.e. represented by camera 10); 2) a network feed (16) which allowed the network TV programming to be broadcast/distributed to affiliated local TV stations (i.e. 18). As shown in figure 3 of Haselwood et al., said affiliated local TV stations comprised: 1) a source of local TV programming; 2) a switch (i.e. "selector" 46) for: receiving the local TV programming from the local source (44); receiving the network TV programming from the network feed (16); and for outputting either the received local programming or the received network programming to a transmission line (50); 3) a transmitter 42 for receiving the selected TV programming from the transmission line and for broadcasting the selected TV programming to household receiver location/stations for processing and display (not shown in the figures).

**II. Conventional Teletext Broadcast Systems as Illustrated via the Publication entitled "TELETEXT SIGNAL GENERATION EQUIPMENT AND SYSTEMS" by Mothersole:**

Given conventional TV broadcast system structure as is illustrated in Haselwood et al.<sup>139</sup>, figure 4(a) of Mothersole illustrate that it was conventional to have

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<sup>139</sup> The examiner maintains that Haselwood et al. simply illustrates the conventional TV broadcast system structure to which the teletext distribution system structure, shown in figure 4(a) of Mothersole, was conventionally applied.

modified the network TV station (i.e. "STATION a") and the local TV stations (i.e. "STATION B") of such systems to have each comprised:

- 1) circuitry for inserting packetized Teletext data into the vertical blanking intervals of their respective TV programming broadcasts (i.e. an "INSERTER"); and
- 2) an associated source of teletext data (i.e. a "TELETEXT ORIGINATING SOURCE") for providing the packetized Teletext data which are to be transmitted by the respective local/network TV station [also note the first 5 lines under the heading "2.6 Teletext Networking" on page 348].

In the case of the local TV broadcasting stations (i.e. "STATION B"), the local source of teletext data was known to have included means (i.e. "DECODER") for extracting selected pages of teletext data from the network TV programming feed for insertion/ancillary into the locally broadcasted TV programming (i.e. via the local "INSERTER") along with the locally provided pages of teletext data [note figure 4(a) and the first full paragraph on page 349].

### III. Conventional Teletext Decoder Structure Exemplified in the Showing of Betts [GB 1,556,366]:

In order to extract, decode and process the *discrete data packet signals* of a conventional teletext transmission from a TV signal broadcast, it is maintained

that any/all teletext receivers/decoders must have at least comprised circuitry for performing the following steps: 1) a step of receiving and demodulating the TV signal broadcast; 2) a step for separating the *discrete data packet signals* from the received and demodulated TV signal; 3) a step for detecting and identifying those of the separated *discrete data packet signals* which are desired/required; 4) the step of decoding the desired/required *discrete data packet signals*; and 5) the step of processing the decoded *discrete sets of information* for further processing by the receiver/decoder. Conventionally, each of these decoding steps were performed by separate electronic blocks dedicated to performing the respective step [note lines 46-50 on page 1 of Betts]. Betts recognized that it was both advantageous and desirable to have replaced some/many/most of these separate dedicated electronic blocks with a single programmable CPU/processor in order to: simplify the receiver/decoder structure (see lines 50-54 of page 1); and to simplify the process of altering the operation of decoder/receiver to perform different/new functions (see lines 70-83 on page 1).

#### **IV. Conventional Teletext Data Format, Content, Extensions as Exemplified in the Showings of the "VIRDATA" publication and the publications by Chambers, Gunn et al., Hutt, Anderson, and Barrett**

The examiner maintains that the process of encoding *discrete sets of*

*information* (i.e. pixel data) into *discrete pages of teletext data* (i.e. comprised of character/graphic codes) for insertion into the VBI of broadcasted TV programming, as a sequence of *discrete data packet signals*, was notoriously well known in the teletext broadcast art at the time of applicant's alleged invention; it is in fact the epitome of packetized teletext transmission. Being such, the examiner maintains that one of ordinary skill in the art would have recognized the fact that the "*teletext origination sources*" shown in figure 4(a) of the Mothersole publication inherently performed such notoriously well known processing in order to have created and transmitted the explicitly described pages of teletext data that were processed/transmitted therein [also note the typical origination station structures illustrated in figure 1 and 2 of Mothersole]. The following is noted:

a) The publication "The Vertical Interval: a General-Purpose Transmission Path" by Anderson evidences the fact that those skilled in the art had recognized the fact that the VBI of broadcasted TV programming could be used as a general-purpose transmission path for carrying data pertaining to a wide variety of operations between two or more TV stations of a TV network and/or between TV stations and household TV receivers of the TV network.

B) The "VIRDATA" publication [i.e. pages 78-84 from the VIDEOTEXT '81 INTERNATIONAL CONFERENCE & EXHIBITION,

MAY 20-22, 1981, TORONTO, CANADA] evidences the fact that it was known for TV network stations to have transmits packetized data (i.e. "VIRDATA") to their affiliate stations via the VBI of their network broadcast. This packetized data was often used/transmitted to carry an *incompatible*<sup>140</sup> teletext data service (i.e. "VIRDATA") as an additional service to conventional compatible teletext transmissions; i.e. however, if desired, it was recognized that the packetized "VIRDATA" data could itself be a compatible teletext service. The "VIRDATA" publication explicitly recognized that the digital nature of the packetized system made the system highly adaptable to a wide variety of extended services/uses; i.e. the packetized data format could be used to transmit data representing messages addressed to specific decoders or groups of decoders; data representing control code sequences to provide a remote control over remote relays thereby allowing for a remote control function/mechanism; etc,... [note lines 5-35 on page 83 of the publication];

C) Chambers [US Patent #4,337,485] evidences the fact that it was well known in the art to have used the *discrete data packet signals* of a conventional teletext transmission system to carry information other than pages of character/graphics codes (note lines 63-67 of column 1. More specifically, Chambers evidences the fact that it was conventional to have

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<sup>140</sup> The term "incompatible" refers to the fact that the teletext standard adopted for "VIRDATA" transmission was to be different than that used for normal teletext transmission thereby preventing "VIRDATA" from being received by normal household teletext decoders.



used ones of the *discrete data packet signals* to carry the programming identification codes/labels/information to supplement the TV programming and/or to be used in conventional automatic program selection systems (note lines 29-36 of column 2 and 30-34 of column 4).

D) The publication entitled "a Public Broadcaster's View of Teletext in the United States" by Gunn et al. also evidences the fact that it was well known in the art to have used the *discrete data packet signals* of a conventional teletext transmission system to carry information other than pages of character/graphics codes [note the last six lines on the third page of the publication]. More specifically, Gunn et al. evidences the fact that it was conventional to have used ones of the *discrete data packet signals* to carry program-related data including: text that supplements the TV programming (note the first 10 line on the fourth page of the publication); and computer programming known as *Telesoftware* (note the first 17 lines on the fifth page of the publication);

E) Barrett [US Patent #4,205,343] evidences the fact that it was well known in the teletext data broadcast art to have scrambled/enciphered ones of the *discrete data packet signals* of a conventional teletext transmission system, prior to transmission, thereby dedicating at least some of the teletext pages to private use; i.e. use by only those

receivers/decoders which are enabled to descramble/decipher the scrambled/enciphered pages [note the abstract]; and

F) etc,...<sup>141</sup>

*V. The combined showing of the "prior art" discussed above:*

A) Taken together, the examiner maintains that Haselwood et al. and Mothersole explicitly taught/illustrated a combined TV and Teletext broadcast system for distributing network and local TV programming along with network and local Teletext transmissions; i.e. it is maintained that the network/local TV distribution system illustrated in Haselwood et al. simply represented the type of network/local TV distribution system into which the structure of Mothersole was to be, *explicitly*, incorporated [SEE the first 5 lines under the heading "2.6 Teletext Networking" on page 348 of Mothersole]. The combined TV and Teletext broadcast system shown/suggested by Haselwood et al. and Mothersole

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<sup>141</sup> The examiner maintains that the "prior art" of record provides extensive lists of different applications which can be performed via digitally encoded "insertion/ancillary signals" of which teletext is a part [SEE: the list of applications which begins on the last four lines of page 43 of the publication entitled "a System of Data Transmission in the Field Blanking Period of the Television Signal" by P R Hutt; the list of applications set forth in the abstract of the publication entitled "The Vertical Interval: a General-Purpose Transmission Path" by Ted V. Anderson; and the list of applications in the first twelve lines under the heading "Conclusion" on page 82 of said Ted V. Anderson publication].

comprised the following elements:

- 1) a network broadcast station for originating network television programming;
- 2) a network teletext source for originating a network teletext transmission;
- 3) a network insertion device for inserting the originated network teletext transmission into the VBI of the originated network television programming to produce a combined network information signal;
- 4) transmitter circuitry for transmitting the combined network signal over a network feed to a plurality of affiliated intermediate TV broadcast stations;
- 5) receiving circuitry at each affiliated intermediate stations for receiving the combined signal from the network feed and for separately outputting the received network TV programming and the received network teletext transmission;
- 6) a local TV programming source at each affiliated intermediate station for producing local TV programming;
- 7) a switch at each affiliated intermediate station for selectively outputting either the received network TV programming or the originated local TV programming for local transmission;
- 8) a local teletext data source for originating a combined teletext transmission comprised of a locally originated teletext transmission and selected/desired portions of the received network teletext transmission;
- 9) an local insertion device located at each affiliated intermediate station

for inserting the combined teletext transmission into the TV programming outputted from the switch to produce a combined local information signal;

10) a local transmitter at each affiliated intermediate station to broadcast the produced combined local information signal broadcast to a plurality of household receiver/decoder station locations that are serviced by the respective intermediate station; and

11) a plurality of household receiver/decoders located at respective ones of the receiver/decoder station locations for receiving the combined information broadcast from the local transmitter and for: receiving, demodulating, and displaying the TV programming of the received information broadcast; and/or for receiving, extracting, detecting, decoding, and processing/displaying selected portions/pages of the combined teletext transmission of the received information broadcast.

The examiner notes that both of the network and local teletext transmissions that were originated by the network and local teletext sources of the broadcast system described above explicitly comprised *discrete pages of teletext data*, which inherently represented *discrete sets of information* (i.e. represented sets of pixel information which comprised displayable images) which were transmitted in the VBI of broadcasted TV programming as respective sequences of *discrete teletext data packets*; i.e. wherein each discrete teletext data packet inherently comprised discrete header/control/instruction signal portions and discrete information portions (again, such being the epitome of teletext transmission).

B) While it was known to have implemented conventional teletext receiving/decoding circuitry using separate dedicated *processing units* for receiving, extracting, detecting, and processing/displaying discrete portions of the broadcast teletext transmission, Betts as been cited as being illustrative of the fact that it was notoriously well known in the art that it was desirable to have implemented one or more of these dedicated processing units with a programmable processor/controller/CPU. Based on this fact, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have implemented the required teletext decoders/receivers, in the TV broadcast system shown/suggested by Haselwood et al. and Mothersole (note part a of this section), with ones which were comprised of a programmable processor/controller/CPU; i.e. motivated by the ever present quest for simplicity (i.e. as evidenced by Betts).

C) While teletext transmission systems/standards typically focussed on the specific application of transmitting teletext pages comprised of character/graphic codes, it had long been recognized that "*insertion/ancillary systems*" in general, and teletext packet distribution systems specifically, could be adapted for the purpose of carrying digital data pertaining to a vast variety of other known, conventional, and desirable services/applications. More specifically, as evidenced by the art of record, it was known to have used such "insertion/ancillary systems" to have used such systems for transporting any of: program related data; Telesoftware; cuing signals; messages addressed to one or more receiver/decoder locations; electronic mail; messages addressed to one or more affiliated TV

stations; program routing information; scramble/enciphered data; program identifiers; switching signals; monitoring codes; remote control sequences; etc,...

Armed with such knowledge/evidence, the examiner maintains that it would have been obvious to one of ordinary skill in the art to have appropriately modified the TV/Teletext broadcast system shown/suggested by Haselwood et al. and Mothersole (note part a of this section) to carry data pertaining to one or more of these known and desirable applications in addition to the conventional pages of character/graphics codes. In fact, the examiner maintains that one skilled in the art would have been motivated to have provided all of these known and desirable applications but would have been forced to have selected/chosen only a subset of these applications in view of the limited bandwidth that was available in the VBI of a TV signal; the selection of a given subsets of these applications from a known set of desirable applications represented nothing more than an obvious choice of design well within the level of one of ordinary skill in the art.

**107. Claims 57-182 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell et al. [US Patent #4,536,791] for the same reasons that were set forth for claim 56 above. The following is noted:**

- 1) The interactive subscriber receiver station/apparatus described in Campbell et al. was computer/software controlled [see figure 7];
- 2) The interactive subscriber receiver station/apparatus described in Campbell et al. could be implemented within a two-way CATV environment (see figure 10)

besides the more common one-way environment (see figure 9); and

3) The interactive subscriber receiver station/apparatus described in Campbell et al. was controlled by a whole host of control signaling as is illustrated in figure 11.


108. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

109. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Andrew Faile whose telephone number is (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DEH 8/01

  
ANDREW FAILE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600



**APPENDIX I: (Zaboklicki: arguments which have**

been reproduced from the file history of

S.N. 08/469,107)

I. The Zaboklicki reference (summarized):

"Dialogue television", *per se*, was notoriously well known in the art at the time that Zaboklicki was published <sup>142</sup>. This fact clearly explains why little effort was made by Zaboklicki to explain/define the meaning of the "dialogue television" terminology.

Applicant's assertion that one skilled in the art would not have known what was meant by the term "dialogue television" is based on, or clearly attempts to portray, an unrealistically low level of skill for one of ordinary skill in the art.

Because "dialogue television" systems were already well known to those of ordinary skill in the art at the time Zaboklicki was published, one skilled in the art certainly would have expected the stated objective of the Zaboklicki disclosure to be something more than simply providing a basic/conventional "dialogue television system". And indeed, the Zaboklicki publication clearly lived up to such expectations. Specifically, in reading the Zaboklicki publication, one finds that the stated objective of the Zaboklicki disclosure was to provide an *improved* dialogue television system. More specifically, the stated objective of the Zaboklicki disclosure was to provide the a dialogue television system **for**

**facilitating the mass reception of dialogue television programming**

**by a plurality of independent television receivers.** This was clearly the key feature which Zaboklicki believed distinguished his disclosed dialogue television system over dialogue television systems of the "prior art".

To achieve this stated objective, Zaboklicki disclosed a dialogue television system in

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<sup>142</sup> The examiner notes that term "dialogue television" was often used in European literature as a synonym for "interactive television". Being such, the examiner continues to reject applicant's assertion that one skilled in the art would not have known what was meant by the term "dialogue television" as used in the context of the Zaboklicki disclosure.

which at least one "dialogue television program" <sup>143</sup> was transmitted for "mass reception" by each of a plurality of television receivers. Each of these television receivers comprised programmable processing circuitry for independently receiving, processing, presenting and displaying the transmitted dialogue television program, under the control of downloaded computer software, by independently performing the following steps:

- a) by presenting the viewer(s) at the receiver location with a first displayed "program fragment" <sup>144</sup> of the selected dialogue television program (e.g. the presentation of a query which required a response from the viewer(s));
- b) by accepting an input from the viewer(s) corresponding to his/her response to the first displayed program fragment (e.g. a required "yes" or "no" response to the query);
- c) by presenting the viewer(s) with a next displayed "program fragment" of the selected dialogue television program wherein said next displayed fragment was selected in response to, and pertained directly to, the viewer's response to the first displayed fragment (e.g. an explanation as to why his/her "yes"/"no" response to

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<sup>143</sup> The term "dialogue television program" was used in Zaboklicki to refer to television programming which comprised a plurality of television "program fragments"; i.e. wherein the term "program fragments" referred to distinct pieces/segments of the dialogue television program. On the receiver side of the Zaboklicki system, only selected ones of these program fragments were displayed/presented in response to a viewer's inputs thereby assembling a television program presentation that was tailored to the requirements of said viewer as defined by his/her inputs.

<sup>144</sup> The examiner notes that the term "program fragment" was used in Zaboklicki to refer to pieces/segments of a dialogue television program which comprised: a) a page of displayable teletext data; b) a segment of displayable audio programming; and/or c) a segment of displayable video programming.

the presented query was right or was wrong); and

d) by presenting the viewer(s) with additional displayed "program fragments" of the dialogue television program which require additional responses from the viewer(s) and from the system (e.g. by repeating steps a-c for additional queries of the dialogue presentation).

For the record, it is noted that such interactive exchanges between the system and the viewer created, in effect, an interactive "*dialogue*" between the system and the viewer; hence the name "*dialogue/interactive television*".

As with most (i.e. if not all) "dialogue"/interactive television systems, great effort in terms of labor had to be made by the creator of its "dialogue"/interactive television programming in order to ensure that each receiver received all of the program "fragments" that it required when "branching" through the program fragments of the dialogue program. Specifically, the creator of dialogue/interactive television programming had to be sure that the system would always know what fragments had to be received and displayed given each and every scenario/sequence of responses which could ever possibly be entered by any viewer. Specifically, during any given interactive exchange between a viewer and the system, each of the Zaboklicki receivers had to be capable of receiving, selecting, and displaying the specific program fragment of the dialogue/interactive program being presented which correspond to the viewer's entered response. More specifically, if the viewer entered a "yes" response to a presented query, then receiver had to be capable of selecting and displaying the received program fragment which responded

to this entered "yes" response while, at the same time, the receiver also had to be capable of having selected and displayed the received "alternative" program fragment which responded to an entered "no" response had the viewer entered a "no" response instead of the entered "yes" response; i.e. because the receiver had no way of knowing in advance how a given viewer would respond to each query, each receiver had to receive all of the program fragments which could be required even though many of them would not be required/used/selected/displayed/presented because they corresponded to the alternative responses which might have been entered, but were not entered, by the given viewer. These program fragments, which required but were not used, constituted the "surplus" of fragments discussed in Zaboklicki document <sup>145</sup>. To be perfectly clear, because the Zaboklicki system had to be able to present a given viewer with the appropriate system response during each interactive exchange (e.g. the system had to receive and present a first system response/fragment when a viewer entered a "yes" response to a given query and had to receive and present a second different system response/fragment when the viewer alternatively entered a "no" response to the given query), and because the Zaboklicki system did not know which system response would be needed in advance of the exchange, all program fragments (i.e. a surplus of fragments) had to be transmitted for each interactive exchange so that the appropriate program fragment was always available for selection and display no matter how a viewer answered a given query (e.g. both the system response that was needed if/when the viewer entered a "yes" input to a given query and the alternative system response that was needed if/when the viewer alternatively

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<sup>145</sup> As before, the examiner rejects applicant's assertions that one skilled in the art would not have understood what Zaboklicki meant by the term "surplus" of fragments; i.e. applicant's assertion is based on, or is an attempt to establish, an unrealistically low level of skill in the art.

entered a “no” input to the same query had to be available even though only one would ever be selected/displayed). The non-selected/”extra ones of said received program fragments which were not used/displayed were simply discarded/”dropped”; i.e. hence, the “*drops*” discussed in the Zaboklicki disclosure <sup>146</sup>.

To perform the operations discussed above, each of the receivers in the Zaboklicki system had to be programmed so as to “know” how to locate, select, and display those of the transmitted program fragments which were needed to assemble the dialogue television presentation. To provide this knowledge (i.e. the crux of the Zaboklicki invention), each receiver in Zaboklicki received a transmitted “*digital processing program*”, in the form of downloaded “*Telesoftware*” <sup>147</sup>, along with the surplus of transmitted program fragments. This “*Telesoftware*” programmed a processor/CPU within each receiver with the computer software “instructions” that were necessary to locate, select, and display the ones of the surplus of transmitted program fragments so as to assemble the dialogue television program presentation that was assembled based on the responses of the respective viewer. [note item 40 and 41 on page 21 of the Zaboklicki translation].

As to the structure needed to implement the Zaboklicki receivers, the Zaboklicki disclosure left little to one's imagination. In fact, Zaboklicki provides various block diagrams which represent the required receiver structure of which the most detailed is that of figure 3. The functions performed by each block within these diagrams was clearly

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<sup>146</sup> As before, the examiner rejects applicant's assertions that one skilled in the art would not have understood what Zaboklicki meant by the term “drops”; i.e. applicant's assertion is based on, or is an attempt to establish, an unrealistically low level of skill in the art.

<sup>147</sup> The term “Telesoftware” was used in a conventional manner in the Zaboklicki reference so as to refer to the transmission of computer software in the form of digital teletext data that was carried/embedded in the vertical blanking intervals of the video program fragments which comprised the transmitted dialogue television program.

stated/identified by the functional labels which were provided under the heading "LIST OF REFERENCES" (note pages 19-23 of the PTO obtained translation) and, in almost all cases, are set forth and explained in much greater detail via the written description and claims of the Zaboklicki disclosure. For example, the following is noted with respect to figure 3 of the Zaboklicki disclosure:

a) Element "54" represents a TV receiver which includes a tuner for selecting and demodulating a single broadcasted TV signal transmission wherein said selected transmission represents a selected portion (e.g. "fragment") of a multichannel dialogue television broadcast. a video signal is then extracted from the selected/demodulated transmission wherein said video signal contains embedded teletext data comprised of Telesoftware, displayable teletext pages, fragment identification codes; and various other types of command/control signals. The receiver (54) outputs the said video signal to an output (i.e. @25);

B) Element "56" represents a teletext decoder which receives said video signal that was outputted (@25) from the receiver. Said teletext decoder operates: (@36) to receive the outputted video signal and to process/"prescreen" the teletext data embedded therein; (@40) to process/"prescreen" those portions of the prescreened teletext data which represent said Telesoftware and said fragment identification codes; (@41) to select and decode displayable teletext page data based on page selection codes received (via element 40) from a programmable processor (@6); (@57) to detect teletext command/control signals; (@ 42) to convert the selected displayable teletext page data into a displayable video signal and to output said displayable video signal to the TV receiver for display; (@40) to

output said processed/prescreened Telesoftware and fragment identification codes to an input (@39) of said programmable processor (@6); and (@6) to program said programmable processor via said processed/prescreened Telesoftware so as to output (@40) various control signals for controlling the selection and display of the received program fragment based on the entered responses from the viewer (via element 34), based on locally provided initial user data (@35), and based on the prescreened fragment identification codes. It is noted that the control signals output from the programmable processor (@ 40) are used to control the tuner of the TV receiver (@27) to tune to receive video fragments, to control the teletext decoder to select teletext page fragments, etc,...

## II. Applicant's allegation that the Zaboklicki reference is not enabling:

Applicant continues to take the position that the Zaboklicki reference is not enabled as applied to the pending claims. With respect to these argument, the examiner notes the following:

A) First, applicant is again reminded that the teachings found in Zaboklicki must not be read in a vacuum. To the contrary, the teachings found in Zaboklicki must be read in light of the level of skill in the art which existed at the time of applicant's alleged invention. The examiner points out that interactive/"dialogue" television transmission systems of the type to which Zaboklicki was directed, and the technologies on which the Zaboklicki disclosure was based <sup>148</sup>, were all

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<sup>148</sup> Applicant continues in his attempt to remove the Zaboklicki reference from consideration by portraying this reference as being: "so vague and indefinite in its description of *the technology* that virtually any



notoriously well known in the art at the time that the Zaboklicki disclosure was published [note: US Patent No. #3,008,000 to Morchand; the "second" translation of the German Patent document #2,550,624 obtained by the Office in January of 2001; US Patent #4,634,386 to Tamaki; US Patent #4,609,358 to Sangster; US Patent #4,264,924 to Freeman; etc,...). Given this level of conventional skill, the examiner maintains that one skilled in the art would have at least understood the Zaboklicki disclosure as having shown all that was set forth in part "I." of this paragraph.

B) While the examiner does not dispute the fact that effort is required in order to discern the meaning of the Zaboklicki disclosure, the examiner rejects applicant's assertions that the objectives and system implementations of the Zaboklicki reference were "ill-defined" and/or "unenabled". [SEE: the summary of Zaboklicki set forth in part "I." of this paragraph]

C) Applicant acknowledges that the Zaboklicki reference states that the goal of the disclosed system was to facilitate mass reception of "dialogue television".

Applicant, however, argues that the Zaboklicki reference is not enabled because it

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**reliance on the publication as prior art in the instant application can only be based on speculation and conjecture....[it] is not an enabling publication."** It is noted that this position also seems to be applicant's excuse for never directly addressing the grounds of rejection which were/are based on the Zaboklicki reference during the prosecution of applicant's 329 co-pending applications; i.e. applicant now fails to explicitly state what it is within the Zaboklicki reference that applicant does not understand and/or believes would not have been enabled.

In response to applicant's allegation, the examiner simply points out that "*the technologies*" utilized by the Zaboklicki disclosure, (e.g. teletext distribution/display, "Telesoftware" distribution/execution, interactive/dialogue TV signal structure/format/display, TV receiver structure/tuning/display, etc,...), were all notoriously well known in the art at the time of the Zaboklicki invention, and it is this conventional state of these arts/technologies which serves as the backdrop/context in which the Zaboklicki disclosure/teachings would have been viewed by those of ordinary skill in the art. Applicant's error is that he has improperly chosen to view the Zaboklicki disclosure in a vacuum. Simply stated, the description provided by Zaboklicki was sufficient to have enabled one to have made and used the invention(s) as described in Zaboklicki and as applied against pending claims.

failed to explain what actually constituted “dialogue television” [see lines 1-11 on page 45 of applicant’s arguments filed 8/13/97 filed in S.N. 08/469,107]. This is absurd. Again, the use of the term “dialogue television” was notoriously well known in the art and its meaning within the context of the Zaboklicki reference would have been clear to those skilled in the art without the need of additional explanation. [SEE: the summary of Zaboklicki set forth in part “I.” of this paragraph]

D) Having first admitted that he does not even understand the objectives of the Zaboklicki disclosure [note lines 4-6 on page 45 and lines 4-6 on page 46 of applicant’s arguments filed in S.N. 08/469,107], applicant goes on to allege that the explanations given by Zaboklicki as to how such objectives were to have been achieved/implemented could not have been understood by those of ordinary skill in the art [i.e. a case in which applicant first admits that he is totally blind, but then authoritatively characterizes that which allegedly does not see]. Applicant even goes so far as to allege that those skilled in the art would not have even understood what various terminologies used in the Zaboklicki disclosure meant; e.g. “data surplus for drops”; “a digital processing program for the individual data fragments provided in the telecast”, etc., [see lines 16-18 on page 45 of the arguments filed 8/27/97 in S.N. 08/469,107]. The examiner rejects applicant’s allegation. One skilled in the art would have understood Zaboklicki’s use of said terminologies and would have understood Zaboklicki’s explanation as to how its explicitly stated objectives were to have been achieved. [SEE: the summary of Zaboklicki set forth in part “I.” of this paragraph].

E) Again, the examiner reminds applicant that the Zaboklicki disclosure should not be read in a vacuum. Multichannel interactive TV display systems, *per se*, were notoriously well known in the art as has been evidenced by applicant's own cited "prior art" and the "prior art" cited in part "A)" of this section. At the time it was drafted, the alleged novelty of Zaboklicki clearly rested in its stated goal of having provided an interactive/"dialogue" TV program system which enable interactive TV programming to be transmitted for mass reception and display by a plurality of receivers [see part "B)" above]; i.e. not in simply having had provided an interactive/"dialogue" TV program system. As described, Zaboklicki achieved this goal by transmitting a "surplus" television program fragments along with the intelligence (i.e. "Telesoftware" as was explicitly stated) and the control signals that were needed to control each receiver to interactively select and display ones of the "surplus" of transmitted program fragments in response to inputs/responses from respective viewers.

**APPENDIX II:** (claim to priority; “different” subject matter)

Applicant alleges that many/most/all of his pending claims derive the support that is required under section 112-1 from the "*WALL STREET WEEK*" embodiment that was described in the current disclosure; wherein said current disclosure was originally filed on 9/11/1987 (i.e. hereafter "applicant's 1987 disclosure). During the present prosecution, applicant has alleged that these same pending claims are entitled to priority based on a "*WALL STREET WEEK*" embodiment that was described in the disclosure of a parent application filed 11/3/81 (i.e. hereafter "applicant's the 1981 disclosure).

Since applicant's 1987 disclosure is different from applicant's 1981 disclosure, and since applicant's 1987 disclosure did not formally incorporate the 1981 disclosure into the 1987 disclosure via an "*incorporation by reference*", the pending claims are only entitled to 1981 priority for the concepts that are common to both applicant's 1987 disclosure and applicant's 1981 disclosure. While the "*WALL STREET WEEK*" embodiment that is described in applicant's 1987 disclosure and the "*WALL STREET WEEK*" embodiment that is described in applicant's 1981 disclosure have their similarities, the actual methods/details/structures used to carry out these two "*WALL STREET WEEK*" embodiments are quite different. The following is provided to exemplify such differences:

a) It is noted that: 1) applicant's 1987 disclosure references figure 1 of the 1987 disclosure as illustrating the receiver structure that was used to implement the 1987 "*WALL STREET WEEK*" embodiment [note the discussion which begins in line 21 on page 20 of applicant's 1987 disclosure]; and 2) applicant's 1981 disclosure references figure 6c of the 1981 disclosure as illustrating the receiver structure that was used to implement the 1981 "*WALL STREET WEEK*" embodiment [note the discussion which begins on line 31 of column 19 of US

Patent #4,694,490]. While these two figures use a common label "MICROCOMPUTER" and reference numeral "205" to identify one element of the respective structures, the identified elements are clearly different in structure and operation; i.e. showing **that it would be erroneous for one to assume** that common labels and common reference numerals were used in applicant's 1981 and 1987 disclosures as an indication of common elements. The fact that commonly labeled elements in applicants 1981 and 1987 disclosures represent different structures/operation is evidenced in the following:

- 1) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for overlaying locally generated graphics over the related/received TV signal broadcast whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure did not comprise such circuitry but instead outputted locally generated graphics to the TV receiver so that they could be overlaid over a related/received TV signal broadcast;
- 2) the "MICROCOMPUTER" (205) of applicant's 1987 disclosure actually comprised the circuitry required for receiving, loading, and running downloaded computer *software* (i.e. the disclosed "program instruction set") which was used to control the "MICROCOMPUTER"(205) of applicant's 1987 disclosure to execute functions defined by ones of later received discrete instructions whereas, in contrast, the "MICROCOMPUTER" (205) of applicant's 1981 disclosure was pre-

programmed with computer *software* which was used to control the "MICROCOMPUTER"(205) of applicant 1981 disclosure to execute functions defined by ones of received discrete instructions;

B) In view of the differences in structure that is set forth in part a) of this paragraph, it is clear that the method used to overlay graphic images on a related/received TV signal broadcast in the 1987 "*WALL STREET WEEK*" embodiment is quite different from the method used to overlay graphic images on a related/received TV signal broadcast in the 1981 "*WALL STREET WEEK*" embodiment. Most notably, in the 1981 "*WALL STREET WEEK*" embodiment the overlay method was performed by cuing a microcomputer with instructions signals (e.g. cuing signals) which caused the microcomputer to execute ones of locally stored software instructions which were required to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast whereas, in sharp contrast, in the 1987 "*WALL STREET WEEK*" embodiment the overlay method was performed by first **downloading software** to the microcomputer and then cuing the microcomputer with instructions signals (e.g. cuing signals) which caused the microcomputer to execute the downloaded software to generate, output, and overlay locally generated graphics onto a received/related video signal broadcast.

C) The examiner agrees that applicant is entitled to the 1981 priority date only

for those claims of the present application which are limited to subject matter that was **common** to both of applicant's 1981 and 1987 disclosures. Under the present circumstances <sup>149</sup>, it is maintained that applicant is not entitled to the 1981 priority date for claims which the **same/common support** can not be shown to exist in both of applicant's 1981 and 1987 disclosures. More specifically, the examiner rejects any allegation that applicant is entitled to the priority of their 1981 disclosure for claims which depend from their 1987 disclosure when it can be shown/alleged that each claim has different interpretations which allow them to be read on applicant's 1987 "*WALL STREET WEEK*" embodiment (via a first interpretation) and on applicant's 1981 "*WALL STREET WEEK*" embodiment (via a second interpretation that is different from the first); i.e. priority to the 1981 disclosure should/will only be given if applicant can show that the way that the claims are being interpreted is the same for both disclosures ( i.e. if the teachings on which each claim is based is **common** to both disclosures). To permit otherwise, would improperly create a tool by which an applicant could obtain the earlier filing date of a first filed invention, for a later filed invention, by carefully drafting subsequently filed claims in a manner which allows said drafted claims to be read on both inventions via different interpretations of the same claims. In the present application, it would be improper for the examiner to give a 1981 priority date to claims that are directed to

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<sup>149</sup> The present disclosure: 1) comprises the 1987 disclosure and is, at best, a CIP of the disclosure filed in 1981; and 2) comprises the 1987 disclosure into which the 1981 disclosure has not been incorporated (i.e. neither literally nor by reference).



applicant's 1987 "*WALL STREET WEEK*" embodiment even if it can be shown that the same claims can be interpreted in a manner which allows them to be read on applicant's 1981 "*WALL STREET WEEK*" embodiment; i.e. unless it can show that the support that is provided for the claims by both disclosures is in fact the same/common to both disclosures. Because the disclosed structures and processes used to implement applicant's 1987 "*WALL STREET WEEK*" embodiment clearly differ from the disclosed structures and processes used to implement applicant's 1981 "*WALL STREET WEEK*" embodiment (note: parts a and B of this paragraph), the examiner maintains that the subject matter which is actually common to both disclosures, e.g. that subject matter of the 1987 disclosure which is actually entitled to priority of the 1981 disclosure, is very small indeed.

**APPENDIX III:**(“MODE 2” captioning)

"MODE 2"-TYPE CAPTIONING AS DESCRIBED:

- A) On pages of 137 and 138 of "THE CBS/CCETT NORTH AMERICAN BROADCAST TELETEXT SPECIFICATION (EXTENDED ANTIOPE)" which was published on 5/20/81; and
- B) On page 72 of Appendix B of a Petition that was filed on 7/29/80 with the FCC

CBS/CCETT  
NORTH AMERICAN  
BROADCAST TELETEXT  
SPECIFICATION

(EXTENDED ANTIOPE)

MAY 20, 1981

H&W 333

KC006348

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## 7.0 APPLICATIONS

The preceding specification may be used for a multitude of applications; this document will address only two of them, broadcast teletext and captioning. Chapter 8 will describe the subset of rules that will be used for these two services.

### 7.1 Broadcast Teletext

Broadcast teletext is a system which transmits a collection of pages in a cyclical fashion. The pages are organized into groups called magazines. The pages in broadcast teletext are transmitted as complete messages and there is no interaction between the user's decoder and the data base. The user's decoder grabs the pages as they come by in the cycle by means of a page number which is assigned to each page. Pages may also be grabbed through the record header specification bytes as described in Chapter 5.

Each page of the magazine consists of one or more records and is identified by a page number which is the value of the address bytes A1 A2 and A3. In the case of a multi-record page each record is identified by the record header. (See Chapter 5)

Certain pages may be identified by their content and can be grabbed by means of the Y bytes. Examples of these pages are index pages, cover pages, etc.

Through use of the session layer commands it is also possible for a teletext message to contain additional information for use by sophisticated decoders (multipage decoders, for example) that will allow the decoder to automatically capture and store associated pages. Examples may be the sub-index page of a particular section of pages or in the case of a decoder with many pages of memory all the pages in a given category selected by the user.

This interaction at the session level can make the cyclical broadcasting of pages appear to the user as if he were accessing a tree structured data base.

## 7.2 Hybrid Broadcast/Interactive Teletext

Because of the strict adherence to the ISO layered architecture it is also possible to have a hybrid system using a broadcast link in one direction and a lower bandwidth link in the other (telephone line, return cable channel, etc.). In this case pages could be either captured from the cycle or could be individually requested via the return channel.

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Through use of the "Y" bytes, program related pages can also be transmitted. Program related pages are those pages that are transmitted with a television program and are intended to be a complement to the television program. One example of a program related page is captioning.

### 7.3 Captioning

Captioning is a program related teletext message that is transmitted to the decoder and superimposed over the program video at a pre-designated time. The captioning message functions in a manner similar to a normal teletext message except that instead of having to select each page individually the user selects a classification of captions and a level (from 1 to 9) and the decoder automatically displays and erases the appropriate captions at the proper times.

In the case of captioning the session level identifies the fact that the message is a caption. A caption message is characterized by the fact that it is displayed, not over a blank screen, as in the case of normal teletext, but rather over program video. Depending on decoder manufacturers' option, the caption may be displayed keyed over the video or inserted into the video in a box.

Captions are transmitted to the decoder with a bit in the header set so that the caption is captured and put into memory but not displayed. This way many different versions of the same caption may be sent and each decoder can capture the version it chooses. When the caption is to be displayed a simple control packet is sent with the caption type designator equal to the caption to be displayed along with a reveal bit. This causes the caption to be displayed over the program video. To erase the caption another message is sent to the decoder telling the decoder to erase the page and wait for the next caption.

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JUL 29 1980 R

OFFICE OF THE SECRETARY JUL 20 1980

Before the  
Federal Communications Commission  
Washington, D.C. 20554

OFFICE OF THE SECRETARY

In re

Amendment of Part 73, Subpart E of  
the Rules Governing Television  
Broadcast Stations to Authorize  
Teletext

RECEIVED

JUL 28 1980

RM No.

TCM-3727  
OFFICE OF THE SECRETARY

TO: The Commission

PETITION FOR RULEMAKING

CBS Inc. ("CBS"), pursuant to Section 1.401 of the Commission's Rules, hereby petitions the Federal Communications Commission for the issuance of rules which would allow television broadcast licensees to transmit teletext. Adoption of teletext rules and standards is essential at this time to permit implementation by United States broadcasters, such as CBS, of this major technological advance, already in use in other countries, and to channel the United States development of teletext into practical public service in furtherance of the Commission's mandate to "encourage the larger and more effective use of radio in the public interest."\*

\* Section 303(g), Communications Act of 1934, as amended.

ORIGINAL  
FILE

*RM-3727*

Appendix B

CBS

Broadcast Teletext System Standard

Date: 7/29/80

Prepared by: W.C. Nicholls  
R.P. Seidel

Reviewed by: W. Connolly

Approved by: J.A. Flaherty

**APPENDIX IV:** (*ancillary/insertion signaling systems*)

The following represents but four examples of *ancillary/insertion signaling system* prior art:

a) The publication "A System of Data Transmission in the Field Blanking Period of the Television Signal" by P.R. Hutt published in June of 1973 (cited by applicant) illustrates: the basic configuration of such distribution systems including the insertion circuitry needed for inserting formatted ancillary/insertion signals into the VBI of the TV programming which was to be distributed by the TV network; the TV network for distributing the TV programming containing the inserted ancillary/insertion signals; and the data separating circuitry at TV receiving sites for separating the formatted ancillary/insertion signals from the distributed TV programming and for using the information/data contained within the separated ancillary/insertion signals to perform various control and monitoring functions at the receiving site (note figures 36 and 37 on page 38 of the publication). A list of no less than 20 different monitoring and control functions which could be performed at the receiving sites via the information/data carried by said inserted ancillary/insertion signals is also provided via the section/paragraph that bridges pages 43 and 44 of this publication. Significantly, teletext services (i.e. "ORACLE

service") was one of these 20 listed applications;

b) The publication "Vertical Interval Signal Applications" by Harry A. Etkins which was published in April of 1970 in Broadcasting Engineering, also illustrates circuitry for encoding and distributing ancillary/insertion signals in the VBI of distributed TV programming (note figures 1 and 2) and also provides a list of no less than 10 different monitoring and control functions which could be performed at the receiving sites via the information/data carried by said inserted ancillary/insertion signals [note the list which begins in the last column on page 30 and extends to the last column on page 32 of the publication]. Significantly, one of the applications for the ancillary/insertion signals that was discussed was the automatic recording of TV programming at intermediate headend CATV location in order to "solve two of the most vexing problems in cable TV program distribution, dubbing [i.e. taping duplicate copies] and bicycling [i.e. manually transporting the duplicate copies to the respective CATV headends]";

c) The publication "ANCILLARY SIGNALS FOR TELEVISION-INNOVATIONS AND IMPLICATIONS" which was

*a Final Report that was published by the U.S. DEPARTMENT of COMMERCE in September of 1975. This publication explicitly evidences the fact that the VBI of distributed TV programming was an obvious choice for ancillary signal insertion/distribution because it had "the greatest potential for meeting the basic requirement that ancillary signals are not visible in the picture area" [note lines 7-15 on page 19], and the publication provides a list of no less than 20 different monitoring and control functions which could be performed at the receiving sites via the information/data carried by said inserted ancillary/insertion signals [note the list which begins on page 38 of the publication and extends to page 39 of the publication];*

*d) The publication "The Vertical Interval: A General-Purpose Transmission Path" by Ted V. Anderson which was published in September of 1971 (cited by applicant) which also evidenced the desirability to have used the VBI of distributed TV programming as a general-purpose transmission path for carrying and distributing ancillary/insertion signals containing information/data pertaining to no less than 10 different listed control and/or monitoring functions [note: the "Abstract" on page 77 of the publication; the first seven lines under the heading*

*"Introduction" on page 77 of the publication; the discussion in the first paragraph under the heading "Conclusion" on page 81 of the publication; etc,...].*

**APPENDIX V:***(The Content/Scope of Applicant's 1981 and 1987*

*Disclosures as Alleged by Applicant's Own Web*

*Page)*



4,965,825, 4,694,490, 4,704,725

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### Locating Signals

Locating embedded digital signals in variable locations, within a transmission. The system employs microprocessors to locate each embedded signal and to identify what function to perform in response to the signal.

To view the Representative Patents, click on the number below:  
5,335,277

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### Synchronizing Signals

Controlling the synchronization of signals through the timing of their decryption as, for example, in the MPEG-2 System.

To view the Representative Patents, click on the number below:  
5,335,277, 5,109,414

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### Reprogramming Signals

Receiving a signal in a broadcast transmission that identifies a changing signal in the broadcast.

One example is channel mapping, a method to dynamically move channels while maintaining a consistent channel number for the viewer. For example, on a given cable system CNN always appears to the viewer on channel 15 while, transparent to the viewer, the cable system actually carries CNN on one or more channels, other than channel 15.

To view the Representative Patents, click on the number below:  
5,335,277

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### Generating Local Video Overlays

Displaying information about a given television program via locally generated video overlays. The overlay may contain information about the television

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program such as program provider, program title, description, rating, start time, end time. etc.

To view the Representative Patents, click on the number below:  
5,335,277

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### **Automating Servers**

Providing automation capacity for server nodes, especially in recording and routing data packets on time-shifted and systematically delayed bases.

To view the Representative Patents, click on the number below:  
5,109,414

---

### **Automated Transmission and Insertion of Programming and Advertising**

Using control signals to automate the transmission, reception and insertion of any type of programming and/or advertising content to computer network servers, local cable systems, broadcast affiliates or other such intermediate stations.

For example, in order to avoid lengthy delays in accessing Web sites, popular sites are "broadcast" or "streamed" to multiple intermediate servers. The broadcast stream includes instructions to the servers to receive and store specific Web sites for local user access.

In a cable environment, satellites transmit spot commercials to a cable system's headend. The cable system automatically selects its commercials, maintains them in inventory, sets them up on video tape players or servers and inserts them into network transmissions on a scheduled basis. The system also automates the administrative aspects of the local operations.

To view the Representative Patents, click on the number below:  
5,109,414

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### **Automation of Multimedia and Multiple Media Presentations at End-User Sites**

**H&W 347**

Automating media centers by controlling a wide variety of user's peripheral equipment including computers, printers, television sets, radios, VCRs, recorders and compact disk, CD-ROMS, telephone equipment, etc.

To view the Representative Patents, click on the number below:  
[5.109.414](#), [5.335.277](#)

---

### **Customizing On-Screen Program Guides**

Allowing users to generate customized program guides such as one based on themes or favorite channels.

To view the Representative Patents, click on the number below:  
[5.335.277](#)

---

### **One Touch VCR Recording**

Enhancing VCR recording functionality by providing the capacity to record programming for later use with the touch of one button.

To view the Representative Patents, click on the number below:  
[5.335.277](#)

---

### **Intelligent Agents**

Viewing or recording choices based on a working knowledge of individual viewer's interests. Whenever viewers make actual program choices, the system updates its data base of specific viewer interests.

To view the Representative Patents, click on the number below:  
[5.335.277](#)

---

### **Pay-Per-View Promotion and Acquisition**

Systems which facilitate the promotion (i.e., a request by a viewer for information about the program such as a preview or on-screen description via text), the ordering of a program, the storage of orders and the transmission of

**H&W 348**

order information to a remote source.

To view the Representative Patents, click on the number below:  
5,335,277, 5,233,654

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### **Interactive Television Transmission and Response**

Management of the transmission of and user responses to interactive television programming.

To view the Representative Patents, click on the number below:  
5,233,654

---

### **Impulse Purchasing**

Enabling viewers ordering products offered on television to have related pertinent information, such as a credit card number, automatically incorporated in their order.

To view the Representative Patents, click on the number below:  
5,233,654

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### **Metering**

Automatically accounting for units of content that users are authorized to receive, and/or transactions made by users, maintaining records of usage/transactions and automatically transmitting this information to data collection stations.

To view the Representative Patents, click on the number below:  
5,233,654

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### **Monitoring**

Monitoring the use of content in a wide range of environments. Audience  
H&W 349

members can input responses to a device which includes a processor, to process input, assemble records that include additional information, and transmit the records to a central computer for analysis.

To view the Representative Patents, click on the number below:  
[4,965,825](#)

---

### **Decryption**

A system for varying code locations and decryption techniques, offering easily implemented high levels of security.

To view the Representative Patents, click on the number below:  
[5,335,277](#)

---

### **Conditional Access Authorization**

A system to authorize permission for the execution/re-execution of previously downloaded source code.

To view the Representative Patents, click on the number below:  
[5,335,277](#)

---

### **Programming Access Control**

A local program lockout feature to block access to unauthorized users, e.g. children, for viewing certain channels and/or content.

To view the Representative Patents, click on the number below:  
[5,235,277](#)

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### **Patents**

Personalized Media Communications, L.L.C. currently has seven issued U.S. patents and over three hundred patents pending. All seven issued patents are  
**H&W 350**

based on disclosure filed in the U.S. Patent and Trademark Office in 1981. Extensive coverage is also being prosecuted internationally based on a second disclosure which was filed in 1987. Two patents have been received in Japan (No. 2676710 and No. 2690676) and one in Australia (No. 624087). In addition, the European Patent Office has recently published the first (No. 0382764) in what is expected to be a series of patents.

The newest patent, U.S. Patent No. 5,887,243, covers methods for the ordering of cable and satellite pay-per-view programming, the integration of Web content into television programming, and the personalization of broadcast television programming.

The pay-per-view ordering methods covered by the patent relate to functionality contained in analog, advanced analog and digital cable set-top converters, as well as satellite receivers. Specific functions include ordering a program, selecting the viewing time for the program, viewing a promotional preview for the program and viewing other information such as the program's rating or the viewer's credit balance.

The integration of Web content into television programming as covered by the patent is a process for automatically linking relevant Internet content with television content in order to provide a richer broadcast presentation.

The system for the personalization of television programming covered by the patent is technology that enables unlimited numbers of viewers of traditional broadcast television to simultaneously receive programming that has specific relevance for each viewer. Viewer-specific segments, based on the viewer's profile and the program, are simultaneously produced at each viewer's receiver and combined into the context of the program at relevant moments to create a personalized presentation.

Each of the U.S. Patents held by PMC is listed below. To read the patent, click on the patent number in which you are interested:

- [U.S.Pat. No. 4,694,490](#)
- [U.S.Pat. No. 4,704,725](#)
- [U.S.Pat. No. 4,965,825](#)
- [U.S.Pat. No. 5,109,414](#)
- [U.S.Pat. No. 5,233,654](#)
- [U.S.Pat. No. 5,335,277](#)
- [U.S.Pat. No. 5,887,243](#)

**APPENDIX VI:** (*The publication “Does Supreme Court*

*Precedent Sink Submarine Patents” by*

*Timothy R. DeWitt; PTC Foundation of the*

*Franklin Pierce Law Center; 1998)*

38 IDEA 601 (Cite as: 38 IDEA: J.L. & Tech. 601)

IDEA: The Journal of Law and Technology 1998

Courtesy  
Bill L.

## DOES SUPREME COURT PRECEDENT SINK SUBMARINE PATENTS?

By Timothy R. DeWitt [FN1]

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### I. Introduction

\*601 Time and time again, clients seek assistance in defending patent infringement lawsuits brought by the owners of "submarine" patents. These patents often spend a decade or more as pending applications in the Patent and Trademark Office only to surface as issued patents at the height of commercial viability, wreaking havoc on well established industries. These submarine patents often leave entire industries scrambling for a defense because the long pendency of the applications permits the applicants to write claims that directly cover industry-standard products.

Perhaps it is time to fight fire with fire - to sink the submarine patents with "submarine" Supreme Court decisions. More than a hundred years ago the Supreme Court began a line of decisions that condemned the practice of enlarging the scope of patents many years after their issuance. [FN1] Although the condemnation originated in the context of broadening reissues, it spread to continuation and divisional practice by way of analogy. [FN2] Over time a number of factors, ranging from incomplete codification to "modification by treatise," [FN3] have served to obscure these still-valid decisions to the point that accused infringers neglect to raise and vigorously argue them in the district courts.

Recently however, with the seemingly ever-increasing number of submarine patents, these long-overlooked Supreme Court decisions have been thrust back into the public eye. The most notorious recent \*602 development, of course, is the highly publicized "flip-flop" of the Nevada district court in *Ford Motor Company v. Lemelson*. [FN4]

The heightened interest in the Supreme Court decisions, and *Webster Electric Co. v. Splitdorf Electric Co.* in particular, [FN5] began in June of 1995 when a Nevada magistrate judge issued a Report and Recommendation which found Jerome Lemelson's [FN6] patents unenforceable on summary judgment due to Lemelson's delay in prosecuting those patents. [FN7] In April, 1996, the district court judge adopted the magistrate's Report and Recommendation. [FN8] The Report and Recommendation, published together with the district judge's two paragraph adoption of the Report and Recommendation, presented a detailed analysis of both the reissue statute and the doctrine of laches. [FN9]

With respect to reissue, Ford Motor had argued that the two-year limitation on filing broadening reissues should apply as an absolute bar to continuation and divisional application practice. [FN10] The magistrate noted that no relationship, express or implied, existed in the statutory scheme between the reissue section, 35 U.S.C. § 251, and the continuing application section, 35 U.S.C. § 120. [FN11] Accordingly, the magistrate found that the statutes themselves did not mandate the application of the two-year limitation on broadening reissues to continuing application practice. [FN12]

The magistrate also considered the public policy implications of Ford Motor's argument and found that public policy weighed against applying the two-year limit to continuing applications. [FN13] In particular, the magistrate found that:

The legal conclusion urged by Ford would encourage inventors to hide their disclosures by not taking patents. Instead, they would choose to abandon \*603 pending applications to avoid the imposition of § 251's two year reissue limitation in favor of continuation practice which would remain otherwise unlimited by statute. Such a result would ratify the "submarine" practice Ford seeks to defeat. [FN14]

Accordingly, the court refused to construe the reissue statute as necessarily limiting the use of continuing applications. [FN15]

The magistrate proceeded to analyze Lemelson's prosecution activities under the doctrine of laches. [FN16] The magistrate began the analyses with the broad foundation of laches generally: "equity aids the vigilant, not those who slumber on their rights." [FN17] Laches, of course, does not require reliance or intent as do other equitable defenses such as estoppel or fraudulent delay. [FN18] Rather, the

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doctrine is applied where there is no statutory period of limitation on the party's right to enforce his interest. [FN19]

Preliminarily, the magistrate noted the distinction between laches and equitable remedies generally:

Although the majority of case law on laches involves parties' delays in bringing suits to enforce rights, courts have extended equitable rules to parties' activities in the patent application process. [FN20]

The magistrate then cited inequitable conduct [FN21] and file wrapper estoppel [FN22] as two examples of equity reaching into the prosecution of patents. [FN23]

This distinction between the patent defense commonly known today as "laches" and equitable remedies generally has become particularly important in view of a later decision issuing from the District Court \*604 for the Northern District of California which attempted to mechanically apply Federal Circuit law on laches to the prosecution of a patent. [FN24] The result of that court's mechanical analysis was the striking of the defendants' laches defense. [FN25]

In particular, the court in *Advanced Cardiovascular Systems, Inc. v. Medtronic, Inc.* applied the laches analysis set forth by the Federal Circuit in its landmark decision in *A.C. Auckerman Co. v. R.L. Chaides Construction Co.* [FN26] The Auckerman decision held that the laches delay period begins when the patentee has notice that it has a cause of action against the defendant for infringement. [FN27] If the laches elements are satisfied, the patentee is barred from collecting damages prior to filing suit. [FN28] As the Medtronic court found, this laches defense defined in Auckerman is wholly inappropriate for delays in prosecuting the patent. [FN29] The patentee cannot have knowledge of its cause of action prior to issuance of the patent because no cause of action exists until the patent issues. The Medtronic court's analysis, however, fails to consider equitable remedies generally.

Contrary to the court in Medtronic, the magistrate in Ford Motor analyzed the defense in terms of Supreme Court precedent on the general application of equity in patent cases rather than mechanically analyzing the defense under the laches principles set forth by the Federal Circuit in Auckerman. [FN30] This general application of equity to prosecution delays may be referred to as "inequitable delay."

The Ford Motor magistrate's general equity analysis began with a discussion of the Federal Circuit's decision in *Studiengesellschaft Kohle mbH v. Northern Petrochemical Co.* [FN31] In that case, the Federal Circuit affirmed a district court's finding of no laches in an infringement suit based on a patent which issued more than twenty years after the application was filed. [FN32] The Federal Circuit's decision addressed two issues relevant to prosecution delays. First, the Federal Circuit considered whether the patentee bore responsibility for the delay and found that the \*605 delay was due to the Patent Office and not the applicant. [FN33] Second, the Federal Circuit considered whether it should set an arbitrary limit on the acceptable length of prosecution regardless of who bears responsibility for the delay. The Federal Circuit declined to set an arbitrary limit:

The delay in patent issuance that we here confront is appallingly long. The culprit, however, was not SGK but the tortuous interference practice. We are without authority to set our own arbitrary limit. [FN34]

The critical aspect of the Federal Circuit's decision is that it did not state that laches cannot apply to delays in prosecuting a patent.

The magistrate next considered the Supreme Court's decisions in *Crown Cork & Seal Co. v. Ferdinand Gutmann Co., Inc.* [FN35] and in *Webster Electric Co. v. Splittorf Co.* [FN36] The Webster Electric decision found laches due to an applicant's lengthy delay in prosecuting the patent application. [FN37] The later Crown Cork decision clarified Webster Electric by explicitly stating that no fixed two-year presumption of laches exists for continuation applications. [FN38]

The magistrate in Ford Motor Co. then analyzed Lemelson's conduct to determine whether it was reasonable. The magistrate found the conduct to be unreasonable because Lemelson did not present the subject claims to the patent office until decades after he first filed his application; and on that basis, the magistrate found Lemelson's patents to be unenforceable. [FN39] The district judge later adopted the magistrate's Report and Recommendation. [FN40]

Nearly a year after it first adopted the magistrate's Report and Recommendation finding Lemelson's patents invalid and unenforceable, the Nevada district court reversed its decision on reconsideration.

[FN41] The Nevada district court based its reversal on a perceived judicial "reluctance to equitably restrict patent continuation practice" [FN42] and a misreading of Supreme Court precedent. The court itself acknowledged that the cases upon which it relied did not squarely address the issue of equity in the \*606 context of the prosecution of a patent. The court characterized its reliance as follows:

While it is true that these cases do not squarely address the applicability of the equitable doctrine of laches in the context of 35 U.S.C. § 120, the tenor of these cases expresses an unwillingness to judicially circumscribe the delays inherent in the operation of statutory schemes. [FN43]

The court's analysis in this regard was wholly off the mark. The equity issue relating to submarine patents is not simply the amount of time the patent spent in prosecution, but rather whether the patentee abused the statutory scheme with an unreasonable delay that operated to the detriment to others. None of the cases relied upon by the Nevada court addressed the equitable aspect of the issue. Instead, all those cases dealt with attempts to create mechanical judicial limitations of statutory schemes. [FN44] Such a practice would obviously be improper.

The decisions in *Ford Motor Co.* and *Medtronic* actually highlight a critical point of the early Supreme Court decisions addressing inequitable delay. In particular, a mechanical limitation on the use of continuation practice will be inherently unfair to owners of patents whose issuance was delayed through no fault of their own. A governmental agency such as the Patent Office inherently suffers bureaucratic delays which should not serve to prejudice patentees. Instead, the statutory scheme should assume honesty and good faith on the part of applicants and permit, as it does, unlimited continuation application practice. Courts of equity, on the other hand, should preclude abuse of the system.

## II. Submarine Patents and Double Patenting

The patent laws provide applicants with several procedural vehicles for prosecuting their patent claims, several of which may be used to delay issuance of a patent. Those vehicles include continuation, continuation-in-part, divisional, and reissue applications. [FN45] A continuation application is one that claims the benefit of the filing date of an earlier application. An application whose subject matter is disclosed in accordance with 35 U.S.C. § 112 in an earlier filed U.S. application may claim the benefit of the filing date of that earlier application if it was filed before the patenting or abandonment or termination of proceedings \*607 on the first application or on an application similarly entitled to the benefit of the filing date of the first application. [FN46]

A continuation-in-part application likewise may claim the benefit of the filing date of an earlier application to the extent the claims of the later application are supported by the disclosure of the earlier application. [FN47] A divisional application permits an applicant to file a second patent application having the same disclosure as an earlier filed application, and to obtain the benefit of the filing date of the earlier application when two or more distinct inventions are disclosed and supported by the disclosure. [FN48] In each of these practices, the earlier application typically will either issue into a patent or go abandoned shortly after the filing of the continuation, continuation-in-part, or divisional application.

These practices often result in a series of patents issuing from a single disclosure. At least one well-established limitation, double patenting, does exist. The basic concept of double patenting is that the same invention cannot be patented more than once, since that would result in a second patent which would expire after the term of the first patent and extend the time of the protection. [FN49] Only the claims are compared when assessing double patenting. [FN50] Two types of double patenting exist: same invention and obviousness-type. [FN51]

Same invention double patenting arises under 35 U.S.C. § 101, which permits "a" patent for any new and useful process, machine, manufacture or composition, or any new and useful improvement thereof. [FN52] For same invention-type double patenting to exist, the two patents must be drawn to identical subject matter. [FN53] The test is whether \*608 the claims of the two patents cover the same subject matter. [FN54] However, the fact that claims of one patent dominate the claims of another does not necessarily mean that the patents claim the same invention. [FN55]

Obviousness-type double patenting is a judicially created doctrine grounded in public policy. [FN56] The doctrine prohibits the issuance of claims in a second patent which are not patentably distinct from those in a first patent. [FN57] The question involved in obviousness-type double patenting is whether the

claimed invention in the second patent or application, in light of the prior art, constitutes a merely obvious variation of the invention defined in the claims of the first. [FN58]

A patentee can overcome an obviousness-type double patenting problem by submitting to the Patent Office a terminal disclaimer stating that the second patent will expire with the first. [FN59] A terminal disclaimer "is not an admission of obviousness of the later-filed claimed invention in light of the earlier-filed disclosure." [FN60] It raises neither a presumption nor estoppel as to the merits of an obviousness-type double patenting claim. [FN61]

Double patenting, however, does not prevent the issuance of submarine patents because it is too easy for applicants to avoid the double patenting rejection. In particular, an applicant could file a very general patent application with very few generic claims. As the industry develops, the applicant could then add new claims to pending continuation applications to cover the specific features which have now become valuable in the marketplace. Since those specific features did not appear in the few claims of the earlier patent, there can be no double patenting rejection. In this manner the applicant delays issuance of claims on each particular feature until the feature becomes commercially important.

### \*609 III. Equity Should Bar Recovery For Infringement Where the Patentee Unreasonably Delayed the Prosecution of the Patent and Intervening Adverse Rights Exist

Under the still-valid Supreme Court decision in *Webster Electric*, equity should bar recovery for patent infringement where the patentee unreasonably delayed the prosecution of the patent and adverse intervening rights exist. In *Webster Electric*, the Supreme Court analogized abuse of continuation practice to abuse of reissue practice and found that patent-in-suit to be unenforceable due to the patentee's unreasonable delay in prosecuting the patent. [FN62] The foundation for that analogy remains intact and the doctrine should be applied today to submarine patents.

#### A. The Foundation Of The Reissue Analogy

Reissue applications arose from Supreme Court precedent recognizing the need of patentees to correct mistakes which would unjustly deny them their rights under the patent laws. [FN63] The early cases encompassed only narrowing reissues. [FN64] Without explanation, however, the Supreme Court eventually permitted broadening reissues. [FN65]

The Patents Acts of 1832 and 1836 codified the power to reissue and specified the requirements for reissue as follows: (1) the original patent be "inoperative or invalid"; (2) the failure to comply with the patent laws be due to "inadvertence, accident or mistake, and without any fraudulent or deceptive intention"; and (3) the reissued patent be "for the same invention" as the original patent. [FN66] The Patent Act of 1870 added a prohibition on new matter. [FN67]

\*610 In time, the Supreme Court began to permit broadening reissues. In *Miller v. Brass*, the Supreme Court described the initial purpose of reissues as follows:

It will be observed that [while] the law authorizes a reissue when the patentee has claimed too much, so as to enable him to contract his claim, it does not, in terms, authorize a reissue to enable him to expand his claim. The great object of the law of reissues seems to have been to enable a patentee to make the description of his invention more clear, and specific, so as to comply with the requirements of the law in that behalf, which were very comprehensive and exacting. [FN68]

Several years after the enactment of the reissue statute, Congress enacted the requirement that the applicant "particularly specify and point out the part, improvement, or combination which he claims as his own invention or discovery." [FN69] Although it had been customary prior to that time to append a claim to most specifications, it was the first statutory requirement to do so. [FN70] The Supreme Court analyzed the issue of broadening reissues under this framework as follows:

Now, in view of the fact that a reissue was authorized for the correction of mistakes in the specification before a formal claim was required to be made, and of the further fact that when such formal claim was required express power was given to grant a reissue for the purpose of making a claim more narrow than it was in the original, without any mention of a reissue for the purpose of making a claim broader than it was in the original, it is natural to conclude that the reissue of a patent for the latter purpose was not in the mind of Congress when it passed the laws in question. It was probably supposed that the patentee would never err in claiming too little. Those who have any experience in business at the Patent

Office know the fact, that the constant struggle between the office and applicants for patents has reference to the claim. The patentee seeks the broadest claim he can get. The office, in behalf of the public, is obliged to resist this constant pressure. At all events, we think it clear that it was not the special purpose of the legislation on this subject to authorize the surrender of patents for the purpose of reissuing them with broader and more comprehensive claims, although, under the general terms of the law, such a reissue may be made where it clearly appears that an actual mistake has inadvertently been made. [FN71]

Thus, it came to be that applicants could broaden their patent claims through reissue.

Initially, no time limit existed for an applicant to file a broadening reissue. The statutes did not specifically mention broadening reissues and did not specifically mention any time limit on filing them. [FN72] \*611 Eventually, the Supreme Court recognized that applicants were abusing the process:

But by a curious misapplication of the law it has come to be principally resorted to for the purpose of enlarging and expanding patent claims. And the evils which have grown from the practice have assumed large proportions. Patents have been so expanded and idealized, years after their first issue, that hundreds and thousands of mechanics and manufacturers, who had just reason to suppose that the field of action was open, have been obliged to discontinue their employments, or to pay an enormous tax for continuing them. [FN73]

In response to the abuse and despite the absence of any such restriction in the statutory scheme, the Supreme Court began placing limitations on reissues.

The first restriction on broadening reissues was that of diligence. Stated concisely, the Supreme Court held:

The granting of a reissue for such a purpose, after an unreasonable delay, is clearly an abuse of the power to grant reissues, and may justly be declared illegal and void. [FN74]

Thus, the courts, not Congress, imposed a diligence requirement on the filing of broadening reissues.

The two-year limitation on broadening reissues arose via the Supreme Court's analogy to the law of public use:

[W]hile no invariable rule can be laid down as to what is reasonable time within which the patentee should seek for the correction of a claim which he considers too narrow, a delay of two years, by analogy to the law of public use before an application for a patent, should be construed equally favorable to the public, and that excuse for any longer delay than that should be manifest by the special circumstances of the case. [FN75]

Later, Congress codified the two-year limitation. [FN76]

Today, reissue applications permit an applicant to correct errors made in a previously issued patent: a reissue application which seeks to enlarge the scope of an issued patent must be filed within two years after the patent issues while a reissue application which does not seek to broaden the coverage of a patent may be filed at any time. [FN77] This two year limitation in "[t]he reissue statute balances the purpose of providing the patentee with an opportunity to correct errors of inadequate claim scope, with the public interest in finality and certainty of patent rights." [FN78]

\*612 The provisions of the patent statutes generally relating to applications apply to applications for reissue patents, and there may be more than one reissue patent for distinct and separate parts of the thing patented. [FN79] Thus, continuation, continuation-in-part, and divisional applications may be filed claiming priority to a reissue application. [FN80] The Federal Circuit described the specific effect of paragraphs 2 and 3 of the reissue statute as follows:

Section 251[2] has the effect of assuring that a different burden is not placed on divisional or continuation reissue applications, compared with divisions and continuations of original applications, by codifying the Supreme Court decision which recognized that more than one patent can result from a reissue proceeding. Thus § 251[2] places no greater burden on [the patentee's] continuation reissue application than upon a continuation of an original application.. [FN81]

Thus, the Federal Circuit has clearly stated that the law that applies to traditional continuation applications equally applies to reissue continuation applications.

The two-year limitation on asserting claims broader than those in the original patent remains in effect with respect to divisional or continuation reissue applications. [FN82] In other words, an applicant may not submit broadened claims for the first time more than two years after the issuance of the original patent. [FN83] In *Graff*, the Federal Circuit considered this exact issue and reached the following conclusion:

On this case, the public had no notice that broadening was being sought until after the two-year period. We discern no justification for imposing this degree of uncertainty upon the public. [FN84]

The two-year limitation on the filing of broadened claims arises from the notice function of patent claims established by the requirements of 35 U.S.C. § 112. In particular, the primary purpose of the requirement in the patent laws that patent claims distinctly claim the subject matter the applicant considers to be his invention is "to guard against unreasonable advantages to the patentee and disadvantages to others arising from uncertainty as to their rights." [FN85] In other words, patent claims serve the \*613 notice function of advising the public as to what is protected and what remains open to the public. [FN86]

#### B. The Notice Function And The Two Year Limitation On Broadening Patent Claims

Consistent with the notice function of the claims, the law is well-settled that "subject matter disclosed but not claimed in a patent application is dedicated to the public." [FN87] This principle dates back as far as the Supreme Court decision in *Miller v. Brass Co.* [FN88] and has been consistently reiterated and upheld by the Supreme Court for more than a hundred years. [FN89]

In *Miller*, the Supreme Court vigorously attacked a patentee's practice of enlarging the scope of a patent's claim many years after its issuance. [FN90] The Court recognized that if a patentee believes he is entitled to broader claims than those issued in the original patent, and uses due diligence in returning to the Patent Office, his application may be entertained and, upon a proper showing, broader claims may be issued. [FN91] "But it must be remembered that the claim of a specific device or combination, and an omission to claim other devices or combinations apparent on the face of the patent, are, in law, a dedication to the public \*614 of that which is not claimed." [FN92] To protect the public while at the same time permitting a patentee with due diligence to prosecute broader claims than in the original patent, the Court held that:

Any unnecessary laches or delay in a matter thus apparent on the record affects the right to alter or reissue the patent for such cause. [FN93]

Thus, if a patentee desires to prosecute broader claims than those in the original patent, the patentee must do so with due diligence or lose any rights it may have to those broader claims.

These principles underlie the two-year time limit set forth in the reissue statute. "The purpose of the law that a broadening reissue must be applied for within two years after patent grant is to set a limited time after which the public may rely on the scope of the claims of an issued patent." [FN94] In other words, "no one should be relieved who has slept upon his rights, and has thus led the public to rely on the implied disclaimer involved in the terms of the original patent." [FN95]

[ The essence of the notice function is that, at some point in time, the public should be entitled to know the exact scope of the patent protection. Permitting a patentee to continuously alter or enlarge the scope of the patent protection completely frustrates this function.

#### C. Analogizing Continuation Practice to Reissue Practice

The Supreme Court has applied this principle, by analogy, to invalidate divisional and continuation applications. [FN96] The analogy has a sound logical foundation because the use of continuation and divisional applications to indefinitely delay the filing of broadening claims circumvents the purpose and spirit of the statutes. [FN97] In particular, if \*615 continuation and divisional applications may be used to submit broadened claims for an indefinite period of time after the issuance of the first patent, there can be no finality or certainty of patent rights. [FN98] Thus, the public interest in finality and certainty is completely frustrated.

The Supreme Court set forth the foundation for the analogy in its still-valid decisions in *Miller* and *Webster Electric*.

### 1. The *Miller v. Brass Co.* Decision

In *Miller v. Brass Co.*, the Supreme Court considered the validity of a broadening reissue patent filed fifteen years after the issuance of the original patent. [FN99] The Court found diligence, or the lack thereof, to be the key issue:

If a patentee who has no corrections to suggest in his specification except to make his claim broader and more comprehensive, uses due diligence in returning to the Patent Office, and says "I omitted this," or "my solicitor did not understand that," his application may be entertained, and, on a proper showing, correction may be made. But it must be remembered that the claim of a specific device or combination, and an omission to claim other devices or combinations apparent on the face of the patent, are, in law, a dedication to the public of that which is not claimed. It is a declaration that that which is not claimed is either not the patentee's invention, or, if his, he dedicates it to the public. This legal effect of the patent cannot be revoked unless the patentee surrenders it and proves that the specification was framed by real inadvertence, accident, or mistake, without any fraudulent or deceptive intention on his part; and this should be done with all due diligence and speed. Any unnecessary laches or delay in a matter thus apparent on the record affects the right to alter or reissue the patent for such cause. [FN100]

The Court continued on to consider the practice of altering a patent after others in the industry have produced new forms of improvement:

It will not do for the patentee to wait until other inventors have produced new forms of improvement, and then, with the new light thus acquired, under pretence of inadvertence and mistake, apply for such an enlargement of his claim as to make it embrace these new forms. Such a process of expansion carried \*616 on indefinitely, without regard to lapse of time, would operate most unjustly against the public, and is totally unauthorized by the law. In such a case, even he who has rights, and sleeps upon them, justly loses them. [FN101]

Thus, the Supreme Court found that the practice of continuously altering the scope of a patent to cover developing commercial applications was wholly inappropriate when the patentee had unreasonably delayed in presenting its claims to the patent office.

[The condemned practice in *Miller* should be distinguished from the practice of writing claims to cover competitors' products when no unreasonable delay has occurred. Such practice is entirely proper and has been upheld by the Federal Circuit. [FN102] Therefore, the key to the *Miller* decision is the unreasonableness of the applicant's delay in the prosecution, not the writing of claims to cover competitors' products.

### 2. The *Webster Electric* Decision

The facts in *Webster Electric Co. v. Splitdorf Electric Co.* evidenced a long history of continuation and divisional applications. [FN103] The patentee, Kane, filed his first patent application in 1910. [FN104] A patent covering the same subject matter issued to the Podlesaks in 1913, and a reissue patent was also granted in 1915. [FN105] Later in 1915, Kane filed a divisional application which copied the claims of the Podlesak patent, thereby invoking an interference which the Podlesaks eventually won. [FN106] In 1916, Kane was issued a patent on his first application. Thereafter, in June, 1918, Kane amended his divisional application to recite new claims which were allowed and issued into the patent-in-suit in September 1918. [FN107] The claims that issued in 1918 "were for the first time presented to the Patent Office, by an amendment to a divisional application eight years and four months after the filing of the original application, [and] five years after the date of the original Podlesak patent. . . ." [FN108]

\*617 In a later case, the Supreme Court summarized its findings in *Webster Electric* as follows:

[W]e found that Kane, deeming their subject matter not invention, did not intend to assert them, and, prior to 1918, did not entertain an intention to have them covered by patent. During all of this time their subject matter was disclosed and in general use; Kane and his assignee simply stood by and awaited developments. It was upon the reasons so stated that this Court declared "We have no hesitation in saying that the delay was unreasonable, and, under the circumstances shown by the record, constitutes laches, by which the petitioner lost whatever rights it might otherwise have been entitled to." [FN109]

The Supreme Court stated its ultimate conclusion in Webster Electric as follows:

Our conclusion, therefore, is that in cases involving laches, equitable estoppel or intervening private or public rights, the two-year time limit prima facie applies to divisional applications and can only be avoided by proof of special circumstances justifying a longer delay. In other words, we follow in that respect the analogy furnished by the patent reissue cases. [FN110]

Therefore, the Webster Electric decision implies that the two-year limitation of reissues applies to divisional and continuation applications.

### 3. The Crown Cork & Seal Decision: Limiting Webster Electric to Cases of Intervening Adverse Rights

In Crown Cork & Seal Co. v. Ferdinand Gutman Co., the Supreme Court upheld Webster Electric, but limited its scope by distinguishing it from the stated facts. In particular, the Court in Crown Cork addressed the question:

Does this Court's decision in Webster Electric Co. v. Splitdorf Co. mean that, even in the absence of intervening adverse rights, an excuse must be shown for a lapse of more than two years in presenting claims in a divisional application regularly filed and prosecuted in accordance with patent office rules? [FN111]

The Court answered the question in the negative by finding that absent adverse intervening rights, the patentee need not show an excuse for a lapse of more than two years in presenting new claims in a divisional application. [FN112] The Crown Cork Court refused to shift the burden of proof \*618 to the patentee merely because the delay exceeded two years. The Court did not overrule Webster Electric. However, in dicta, it limited Webster Electric to cases in which intervening adverse rights and some evidence of abandonment exists. The Supreme Court later implicitly recognized that adverse intervening rights can render divisional and continuation applications invalid. [FN113]

### 4. Interpreting Webster Electric After Crown Cork & Seal

The Webster Electric court used the terminology "intervening adverse rights" in the context of its analogy to the reissue cases. Thus, one must consult the reissue cases decided contemporaneous with and prior to Webster Electric to determine the proper meaning of that terminology. Upon doing so, it is abundantly clear that "adverse intervening rights" arise from public uses, manufactures or sales of products, and are not limited to interfering patents. [FN114] The inclusion of public uses and sales as giving rise to "intervening adverse rights" is further evident from the Court's decision in Muncie Gear Works v. Outboard, Marine & Mfg. Co. [FN115] The Court in Muncie characterized the difference between the date on which an invention is used in public by an unauthorized user as opposed to an authorized user as "critical." [FN116] Therefore, the rights must be "interfering," i.e., arising before the applicant presents the broadened claim to the patent office, and must be "adverse," i.e., without authorization of the patentee.

The foundation for the Supreme Court's decision in Webster Electric remains on solid ground. In particular, the Supreme Court based the decision in Webster Electric on an analogy to the law applying to reissue applications. That Supreme Court law applying to reissues has now been codified establishing a strict rule that broadened claims may not be filed in a reissue more than two years after the issuance of the original patent.

### \*619 IV. The Federal Circuit Has Implicitly Recognized The Webster Electric Defense

The Federal Circuit has acknowledged Webster Electric type defenses in dicta on two occasions, most recently in Stark v. Advanced Magnetics, Inc. [FN117] The court in Stark considered the issue of whether an inventor who is excluded from a patent must act diligently in seeking correction of inventorship. Although the issue in Stark is different than inequitable delay, the Federal Circuit's dicta relating to diligence generally is enlightening. [FN118] The Federal Circuit addressed lack of diligence generally as follows:

Lack of diligence may be an appropriate basis for barring legal action when there is an affirmative obligation on the claimant to act promptly and without significant pause in establishing a legal right. The common law has recognized that varying degrees of diligence may be required, depending on the circumstances. For example, a higher degree of diligence is appropriate when the claimant is



chargeable with injury or disadvantage to another due to the claimant's failure to act expeditiously . . . . [FN119]

The Federal Circuit concluded that there are circumstances where diligence is an appropriate requisite to pursuit of a particular legal right, whether or not the defense of laches or estoppel may be invoked against the claimant. [FN120]

Unquestionably, the Stark decision leaves the door open to general equitable defenses arising from lack of diligence or unreasonable delay. The Federal Circuit tied the significance of the lack of diligence to the injury a delay may cause to others. [FN121] With respect to the correction of inventorship, the court specifically noted that the statutes and regulations did not require diligence. [FN122] However, the court held that "[w]hether diligent action is required in a particular case must be determined on the facts of that case." [FN123] Thus, despite the absence of a statutory or regulatory time limitation, the Federal Circuit mandated case by case consideration of the diligence requirement. [FN124]

\*620 Unreasonable delay in the prosecution of a patent likewise should be the subject of case by case consideration by the court. Where intervening adverse rights exist, as was the case in Webster, the case for an equitable remedy is strong. More specifically, the injury likely to occur to others due to an applicant's unreasonable delay is great. As noted by the Federal Circuit in Stark:

[T]he graver, more important, or valuable the interests involved, and the more imminent the peril, the more is the vigilance required to constitute diligence. [FN125]

The graveness of the injury to others when a submarine patent issues years after entire industries have adopted a particular technology cannot be understated. On the other hand, if no intervening adverse rights exist, the likely injury to others is minimal. Thus, one can see the importance of adverse intervening rights under the Federal Circuit's general test for equitable remedies based on lack of diligence.

The second Federal Circuit decision recognizing this type of defense is Studiengesellschaft Kohle mbH v. Northern Petrochemical Company. [FN126] In that case, the Federal Circuit addressed a defense that the patentee was guilty of laches or other inequitable delay in the prosecution of the patent-in-suit. The Federal Circuit did not state that no such claim exists. Instead, it evaluated the delay and found that responsibility for the delay rested with the PTO's interference procedures rather than any actions of the patentee. Accordingly, the Federal Circuit stated:

[W]e discern no error in the conclusion that SGK had not delayed inequitably and that the prolonged period of pendency was due to the PTO and not the applicants. [FN127]

Based on these two Federal Circuit decisions, the Federal Circuit may be receptive to a Webster Electric argument. It is worth noting that the Federal Circuit has never cited Crown Cork, but-it-has cited Webster Electric for the exact proposition set forth in this paper: "[N]o one should be relieved who has slept upon his rights, and has thus led the public to rely on the implied disclaimer involved in the terms of the original patent . . . ." [FN128]

\*621 V. Ford Motor Company v. Lemelson: an Extraordinary Misreading of Webster Electric

The recent decision from the District Court for the District of Nevada in Ford Motor Company v. Lemelson, [FN129] does not diminish the significance or applicability of Webster Electric to unreasonable prosecution delays when adverse intervening rights exist. As a preliminary matter, the decision in Ford Motor Co. is simply wrong. The court in Ford Motor Co. based its decision on the assumption that Webster Electric is limited to interferences. [FN130] That assumption is clearly incorrect. Webster Electric was not a decision on an appeal from an interference decision. It was an appeal from a decision in a lawsuit for infringement of a patent. [FN131] As such, it cannot possibly be limited to interferences.

The Nevada court apparently was confused by the reference in Webster Electric and Crown Cork to "adverse intervening rights." That language cannot mean that there must be an interference because no interference existed in Webster Electric. Rather, it references the rights of another which arise after the filing of the first patent application, but before the broadened claims are added to the continuation or divisional application. The concept of intervening rights is well known in the reissue context, and in view of Webster Electric's explicit analogy to reissue, it is clear that the reference to "adverse intervening rights" is a reference to reissue-type intervening rights rather than a reference to an interference.



This interpretation of the meaning of adverse intervening rights is supported by the notice function of patents. In particular, the public has an undeniable interest in the finality and certainty of patent rights. [FN132] Once a patent issues, and after a reasonable amount of time, the public should be able to rely on the fact that "subject matter disclosed but not claimed in a patent application is dedicated to the public." [FN133] Where a sufficient amount of time has passed due to an applicant's unreasonable delay, the public should be permitted to practice unclaimed subject matter disclosed in an issued patent.

\*622 The Nevada district court's confusion may in part have been caused by a well-renown treatise on patent law. [FN134] The treatise confuses the facts of *Chapman v. Wintroath*, [FN135] an early Supreme Court decision relating to interferences, with the facts of *Webster Electric* and concludes that *Webster Electric* has been codified in 35 U.S.C. § 135(b), which relates only to interferences.

The *Chapman* case considered the issue of whether an applicant for a patent may copy the claims of an issued patent twenty months after the issuance of the patent to provoke an interference in the patent office. The Supreme Court found that the applicant could copy the claims of the issued patent under the facts of the case, but it seemed to assume the validity of applying the two-year statutory period for filing claims conflicting with an issued patent.

In the Act of 1939, Congress dealt expressly with the interference problem considered in *Chapman* by providing that no application may be amended to add a claim "for the same or substantially the same subject matter" as a claim of an issued patent more than one year from the date the patent issued. [FN136] That statute does not apply as a defense in an infringement lawsuit. It is limited to interferences and, thus, cannot possibly codify the holding of *Webster Electric*, which did not involve an interference.

The treatise incorrectly groups *Chapman* and *Webster Electric* together as being codified by 35 U.S.C. § 135(b) and concludes that "[p]ossible implications of *Webster Electric* outside the interference context were dispelled by the Supreme Court in *Crown Cork & Seal v. Ferdinand Gutmann Co.*" [FN137] That conclusion ignores the express language of the *Crown Cork* decision itself:

It is clear that, in the absence of intervening adverse rights, the decision in *Webster Electric v. Splitdorf Co.* does not mean that an excuse must be shown for a lapse of more than two years in presenting the divisional application. [FN138]

The *Crown Cork* decision unequivocally states "in the absence of adverse intervening rights." It does not limit *Webster Electric* to interferences.

In any event, the misconception in the treatise polluted the district court's analysis in *Ford Motor Co.* That mistaken confusion between "interferences" and "adverse intervening rights" should not be continued.

#### \*623 VI. Conclusion

The Federal Circuit has acknowledged that general-equitable remedies relating to lack of diligence exist in patent cases. In view of the Supreme Court's decision in *Webster Electric* and its own decisions in *Stark* and *Studiengesellschaft*, the Federal Circuit should recognize inequitable delay as an equitable defense when intervening adverse rights exist.

With respect to the two-year limitation on broadening reissues, that limitation clearly should not apply as a mechanical limitation of continuation and divisional applications. Courts have repeatedly rejected such mechanical time limitations. [FN139] Perhaps instead of serving as a time limitation on continuation and divisional applications, the two-years should serve as a limitation on the doctrine of inequitable delay, i.e., a prosecution delay less than two years cannot be unreasonable.

Regardless of the applicability of the two-year limitation on reissues, courts should consider and apply the defense of inequitable delay in appropriate cases.

FN1. Of Counsel, Arnold & Porter in Washington, D.C.

FN1. *Miller v. Brass Co.*, 104 U.S. 350 (1881).

FN2. *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463 (1924).

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FN3. See *infra*, footnote 134 and accompanying text.

FN4. 40 U.S.P.Q.2d (BNA) 1349, 1362 (D. Nev. 1996), on reconsideration, 42 U.S.P.Q. (BNA) 1706 (D. Nev. 1997), appeal denied, 124 F.3d 227 (Fed. Cir. 1997).

FN5. 264 U.S. 463 (1924).

FN6. Jerome Lemelson is possibly the most notorious patentee in history, being a party in cases resulting in no fewer than fifty-four (54) published decisions.

FN7. Lemelson, 40 U.S.P.Q.2d 1349 (D. Nev. 1996).

FN8. *Id.* at 1350.

FN9. *Id.* at 1350-1351.

FN10. *Id.* at 1353.

FN11. *Id.* at 1354.

FN12. *Id.*

FN13. *Id.*

FN14. *Id.*

FN15. *Id.*

FN16. *Id.*

FN17. *Id.* (quoting Henry L. McClintock, *Handbook on the Principles of Equity* 52 (2d ed. 1948)).

FN18. *Id.* at 1354-55.

FN19. *Id.* at 1355 (citing 1 Dan B. Dobbs, *Law of Remedies*, § 2.4(4) (2d ed. 1993).

FN20. *Id.*

FN21. Inequitable conduct refers to an equitable defense that renders patents unenforceable when the applicant fails to disclose material information during the prosecution of the patent with an intent to deceive the patent office. *Molins PLC v. Textron, Inc.*, 48 F.3d 1172, 1178, 33 U.S.P.Q.2d (BNA) 1823, 1826-27 (Fed. Cir. 1995).

FN22. File wrapper estoppel limits the application of the doctrine of equivalents by binding the applicant to limitations which were made more specific or added to the claims in response to a rejection issued by the patent examiner during the prosecution of the patent application. *Exhibit Supply Co. v. Ace Patents Corp.*, 315 U.S. 126, 136, 52 U.S.P.Q. (BNA) 275, 279 (1942).

FN23. *Ford Motor Co.*, 40 U.S.P.Q.2d at 1355.

FN24. *Advanced Cardiovascular Sys. v. Medtronic, Inc.*, 41 U.S.P.Q.2d (BNA) 1770, 1774-75 (N.D. Cal. 1996).

FN25. *Id.*

FN26. 960 F.2d 1020, 22 U.S.P.Q.2d (BNA) 1321 (Fed. Cir. 1992).

FN27. *Id.* at 1032, 22 U.S.P.Q.2d at 1328.

FN28. *Id.* at 1037, 22 U.S.P.Q.2d at 1333.

FN29. Advanced Cardiovascular Sys., 41 U.S.P.Q.2d at 1774.

FN30. Ford Motor Co., 40 U.S.P.Q.2d at 1356-7.

FN31. 784 F.2d 351, 228 U.S.P.Q. (BNA) 837 (Fed. Cir. 1986).

FN32. Id. at 356, 228 U.S.P.Q. at 841.

FN33. Id.

FN34. Id. at 357, 228 U.S.P.Q. at 842.

FN35. 304 U.S. 159 (1938).

FN36. 264 U.S. 463 (1924).

FN37. Id. at 465-6.

FN38. Crown Cork & Seal Co., 304 U.S. at 168.

FN39. Ford Motor Co., 40 U.S.P.Q.2d at 1358-61.

FN40. Id. at 1350.

FN41. Ford Motor Co., 42 U.S.P.Q.2d at 1711.

FN42. Id. at 1708.

FN43. Id. at 1708.

FN44. The district court cited a Federal Circuit decision that dealt exactly with a proposed arbitrary limit to the length of a patent issuing from a continuation. Studiengesellschaft Kohle mbH, 784 F.2d 351, 228 U.S.P.Q. 837 (Fed. Cir. 1986).

FN45. 35 U.S.C. §§ 120, 121, 251.

FN46. 35 U.S.C. § 120.

FN47. 35 U.S.C.A. § 120, note 4 (West 1984).

FN48. 35 U.S.C. § 121.

FN49. General Foods Corp. v. Studiengesellschaft Kohle mbH, 972 F.2d 1272, 1279-80, 23 U.S.P.Q.2d (BNA) 1839, 1845 (Fed. Cir. 1992); Stark v. Advanced Magnetics, Inc., 29 F.3d 1570, 1576, 31 U.S.P.Q.2d (BNA) 1290, 1296 (Fed. Cir. 1994) ("We take judicial notice that multiple patents are not permitted on the same invention, and that there must be differences among the six patents.").

FN50. Ortho Pharm. Corp. v. Smith, 959 F.2d 936, 943, 22 U.S.P.Q.2d (BNA) 1119, 1125 (Fed. Cir. 1992); General Foods Corp., 972 F.2d at 1277-78, 23 U.S.P.Q.2d at 1843.

FN51. In re Longi, 759 F.2d 887, 892, 225 U.S.P.Q. (BNA) 645, 648 (Fed. Cir. 1985); Carman Indus., Inc. v. Wahl, 724 F.2d 932, 940, 220 U.S.P.Q. (BNA) 481, 487 (Fed. Cir. 1983).

FN52. 35 U.S.C. § 101.

FN53. Longi, 759 F.2d at 892, 225 U.S.P.Q. at 648; Ortho Pharm., 959 F.2d at 940, 22 U.S.P.Q.2d at 1123.

FN54. Carman Indus., 724 F.2d at 940, 220 U.S.P.Q. at 487.

FN55. *In re Kaplan*, 789 F.2d 1574, 1577-78, 229 U.S.P.Q. (BNA) 678, 681 (Fed. Cir. 1986).

FN56. *Longi*, 759 F.2d at 892, 225 U.S.P.Q. at 648.

FN57. *Id.*

FN58. *Ortho Pharm.*, 959 F.2d at 940, 22 U.S.P.Q.2d at 1123.

FN59. *Id.*, 22 U.S.P.Q.2d at 1123; *Longi*, 759 F.2d at 894, 225 U.S.P.Q. at 649.

FN60. *Quad Envtl. Tech. Corp. v. Union Sanitary Dist.*, 946 F.2d 870, 874, 20 U.S.P.Q.2d (BNA) 1392, 1394 (Fed. Cir. 1991)

FN61. *Id.*, 20 U.S.P.Q.2d at 1394; *Ortho Pharm.*, 959 F.2d at 941-42, 22 U.S.P.Q.2d at 1124 (citing *Quad Envtl. Tech. Corp.*).

FN62. *Webster Elec. v. Splitdorf Elec. Co.*, 264 U.S. 463, 466-8 (1924).

FN63. The Patent Acts of 1790 and 1793 contained no statutory provision authorizing the reissue of a defective patent. The Supreme Court first recognized an inherent power to reissue in *Grant v. Raymond*, 31 U.S. (6 Pet.) 218, 229 (1832).

FN64. *Philadelphia & Trenton R.R. Co. v. Stimpson*, 39 U.S. (14 Pet.) 448, 449 (1840); *Stimpson v. West Chester R.R. Co.*, 45 U.S. (4 How.) 380, 382 (1846); *O'Reilly v. Morse*, 56 U.S. (15 How.) 62, 82-3 (1853).

FN65. *Compare Battin v. Taggart*, 58 U.S. (17 How.) 74, 84 (1854), and *Morey v. Lockwood*, 75 U.S. (8 Wall.) 230, 240-1 (1868), with *Burr v. Duryee*, 68 U.S. (1 Wall.) 531, 575 (1863), and *Case v. Brown*, 69 U.S. (2 Wall.) 320, 328 (1864).

FN66. Act of July 3, 1832, ch. 162, § 3, 4 Stat. 559.

FN67. Act of July 8, 1870, ch. 230, § 53, 16 Stat. 198.

FN68. 104 U.S. 350, 353.

FN69. *Id.* at 354.

FN70. *Id.*

FN71. *Id.*

FN72. Act of July 3, 1832, ch. 162, §§ 3,4 Stat. 559; Act of July 8, 1870, ch. 230, § 53, 16 Stat. 198.

FN73. *Miller*, 104 U.S. at 354-355.

FN74. *Id.* at 355.

FN75. *Ives v. Sargent*, 119 U.S. 652, 662 (1887).

FN76. 35 U.S.C. § 251.

FN77. *Id.*

FN78. *In re Graff*, 111 F.3d 874, 877, 42 U.S.P.Q.2d (BNA) 1471, 1474 (Fed. Cir. 1997).

FN79. 35 U.S.C. § 251[2-3]; *Id.* at 876, 42 U.S.P.Q.2d at 1473.

FN80. *Graff*, 111 F.3d at 876, 42 U.S.P.Q.2d at 1473.

FN81. *Id.* at 877, 42 U.S.P.Q.2d at 1473.

FN82. *Id.*

FN83. *Id.*

FN84. *Id.*, 42 U.S.P.Q.2d at 1473-74.

FN85. *Athletic Alternatives, Inc. v. Prince Mfg., Inc.*, 73 F.3d 1573, 1581, 37 U.S.P.Q.2d (BNA) 1365, 1372 (Fed. Cir. 1996) (quoting *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369 (1938)).

FN86. *McClain v. Ortmayer*, 141 U.S. 419, 424, (1891) ("The object of the patent law in requiring the patentee [to distinctly claim his invention] is not only to secure to him all to which he is entitled, but to apprise the public of what is still open to them."); *Athletic Alternatives*, 73 F.3d at 1581, 37 U.S.P.Q.2d at 1372 ("Where there is an equal choice between a broader and a narrower meaning of a claim, . . . we consider the notice function of the claim to be best served by adopting the narrower meaning."); *Hoganas AB v. Dresser Indus. Inc.*, 9 F.3d 948, 951, 28 U.S.P.Q.2d (BNA) 1936, 1939 (Fed. Cir. 1993) (holding that the function of claims is "putting competitors on notice of the scope of the claimed invention."); *Rengo Co. Ltd. v. Molins Mach. Co.*, 657 F.2d 535, 551, 211 U.S.P.Q. (BNA) 303, 321 (3d Cir. 1981) ("[The claim's] purpose is to demarcate the boundaries of the purported invention, in order to provide notice to others of the limits 'beyond which experimentation and invention are undertaken at the risk of infringement.'") (quoting *Norton Co. v. Bendix Corp.*, 449 F.2d 553, 555, 171 U.S.P.Q. (BNA) 449, 450 (2d Cir. 1971)).

FN87. *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1106, 39 U.S.P.Q.2d (BNA) 1001, 1006 (Fed. Cir. 1996) (quoting *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558, 19 U.S.P.Q.2d 1500 (Fed. Cir. 1991)).

FN88. 104 U.S. 350 (1881).

FN89. See, e.g., *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 85 U.S.P.Q. (BNA) 328 (1950).

FN90. 104 U.S. at 355.

FN91. *Id.* at 352.

FN92. *Id.*

FN93. *Id.*

FN94. *In re Fotland*, 779 F.2d 31, 33, 228 U.S.P.Q. (BNA) 193, 194 (Fed. Cir. 1985).

FN95. *Graff*, 111 F.3d at 877, 42 U.S.P.Q.2d at 1474 (quoting *Wollensak v. Reiher*, 115 U.S. 96, 100 (1885)); accord *Webster Elec. Co. v. Splittorf Elec. Co.*, 264 U.S. 463, 467-68 (1924).

FN96. See, e.g., *Webster Elec.*, 264 U.S. at 470-71.

FN97. See, e.g., *Woodbridge v. U.S.*, 263 U.S. 50, 56 (1923) ("Any practice by the inventor and applicant for a patent through which he deliberately and without excuse postpones beyond the date of the actual invention, the beginning of the term of his monopoly, and thus puts off the free public enjoyment of the useful invention, is an evasion of the statute and defeats its benevolent aim."); *Kendall v. Windsor*, 62 U.S. (21 How.) 322, 329 (1858) ("It is the unquestionable right of every inventor to confer gratuitously the benefits of his ingenuity upon the public, and this he may do either by express declaration or by conduct equally significant with language -such, for instance, as an acquiescence with full knowledge in the use of his invention by others; or he may forfeit his rights as an inventor by a willful or negligent postponement of his claims, or by an attempt to withhold the benefit of his improvement from the public until a similar or the same improvement should have been made and introduced by others.").

FN98. Compare *Graff*, 111 F.3d at 877, 42 U.S.P.Q.2d at 1474, with *Woodbridge*, 263 U.S. at 56.

FN99. At the time of the *Miller v. Brass Co.* decision, the original patent term was fourteen years and could be extended an additional seven years.

FN100. 104 U.S. at 352.

FN101. *Id.* at 355.

FN102. *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 874, 9 U.S.P.Q.2d (BNA) 1384, 1390 (Fed. Cir. 1988) (It is not "improper to amend or insert claims intended to cover a competitor's product the applicant's attorney has learned about during the prosecution of a patent application.").

FN103. 264 U.S. 463 (1924).

FN104. *Id.* at 463-64.

FN105. *Id.*

FN106. *Id.*

FN107. *Id.*

FN108. *Id.* at 465.

FN109. *Crown Cork & Seal Co. v. Ferdinand Gutmann Co.*, 304 U.S. 159, 166 (1938) (citations omitted).

FN110. *Webster Electric*, 264 U.S. at 471.

FN111. *Crown Cork*, 304 U.S. at 160-61 (citations omitted).

FN112. *Id.* at 167-68.

FN113. *General Talking Pictures Corp. v. Western Elec. Co.*, 304 U.S. 175, 183 (1938), reh'g granted, 304 U.S. 587 (1938) ("In the absence of intervening adverse rights for more than two years prior to the continuation applications, they were in time.").

FN114. See *Keller v. Adams-Campbell Co.*, 264 U.S. 314, 317 (1924); *Abercrombie & Fitch Co. v. Baldwin*, 245 U.S. 198, 209-10 (1917).

FN115. 315 U.S. 759, 53 U.S.P.Q. (BNA) 1 (1942).

FN116. *Id.* at 767, 53 U.S.P.Q. at 5.

FN117. 29 F.3d 1570, 1576, 31 U.S.P.Q.2d (BNA) 1290, 1294 (Fed. Cir. 1994).

FN118. *Id.* at 1574, 31 U.S.P.Q.2d at 1292-93.

FN119. *Id.*

FN120. *Id.*

FN121. *Id.* at 1575, 31 U.S.P.Q.2d at 1294.

FN122. *Id.*; see also 37 C.F.R. § 1.324.

FN123. 29 F.3d at 1575, 31 U.S.P.Q.2d at 1294.

FN124. *Id.*

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FN125. *Id.* at 1574, 31 U.S.P.Q.2d at 1293 (quoting 26A C.J.S.Diligence at 943-44 (1956)).

FN126. 784 F.2d 351, 228 U.S.P.Q. (BNA) 837 (Fed. Cir. 1986).

FN127. *Id.* at 356, 228 U.S.P.Q. at 841.

FN128. *In re Fotland*, 779 F.2d 31, 33, 228 U.S.P.Q. (BNA) 193, 194 (Fed. Cir. 1985).

FN129. 42 U.S.P.Q.2d 1706 (D. Nev. 1997), appeal denied, 124 F.3d 227 (Fed. Cir. 1997).

FN130. *Id.* at 1710.

FN131. *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463, 464, ("The bill alleges that the Splitdorf Electrical Company had infringed claims 7 and 8 of Kane patent, 1,280,105 . . .").

FN132. *In re Graff*, 111 F.3d 874, 877, 42 U.S.P.Q.2d (BNA) 1471, 1474 (Fed. Cir. 1997).

FN133. *Maxwell v. J. Baker, Inc.*, 86 F.3d 1098, 1106, 39 U.S.P.Q.2d (BNA) 1001, 1006 (Fed. Cir. 1996).

FN134. See 4 Donald S. Chisum, *Patents*, § 11.05[1][b], 11-263 (1997).

FN135. 252 U.S. 126 (1920).

FN136. See 35 U.S.C. § 135(b).

FN137. Chisum, *supra* note 134, at 11-264.

FN138. *Crown Cork*, 304 U.S. 159, 167-168 (1938) (emphasis added).

FN139. *Id.* at 161.

**APPENDIX VII:** (*The State of the TV Art On and Before 1981*).



The following discussion has been provided to establish the level of skill in the art which existed at the time of applicant's alleged invention and, therefor, to set forth the context in which the applied prior art of record must be viewed.

1. The examiner notes that local television broadcast stations, which served small regional areas of a country (e.g. the USA), often lacked the financial resources required to create enough original television programming to fill their daily broadcast schedules. Thus, these local television stations became "*affiliates*" of a national television broadcast network (e.g. NBC, ABC, CBS, etc,...) whereby the national television network created original network television programming which could be transmitted to, and commonly rebroadcast by, all of the local affiliate stations<sup>150</sup>. This arrangement allowed the cost of creating such original programming to be divided among all of the affiliate stations thereby reducing the cost to any one of the affiliates.<sup>151</sup>
2. While in practice it was feasible to fill the affiliate stations' entire local broadcast schedules with network programming, such was not desirable. Specifically, there still remained a need to supplement said network programming with locally originated programming tailored specifically to the needs and interests of the local

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<sup>150</sup> The examiner notes that the existing national *radio* networks/companies naturally evolved into the national *television* networks/companies because the existing radio infrastructure which functioned to create and distribute radio programming could be extended and applied quite naturally to the creation and distribution of television programming. Thus, when applicant argues that one skilled in the art would not have understood that TV and Radio distribution systems are analogous arts, applicant is doing nothing less than ignoring "HISTORY"; i.e. once again applicant's arguments are so wide of the mark that they seem noting less than silly/absurd.

<sup>151</sup> SEE the first 23 lines in the second full paragraph on page 85 of the article "Master Control Techniques" by Marsden which was published in volume 9 of the "Journal of the Television Society" in 1959.

audiences (e.g. local news programs, local commercials, etc,...).<sup>152</sup>

3. To accomplish the above, an arrangement was established in which a national broadcast station would nationally broadcast network programming to all of its affiliate stations in accordance with a strict network broadcast schedule. This strict network broadcast schedule included scheduled "breaks"/"AVAILS" in the network programming which were then made available to the local affiliate stations for the purpose of inserting locally originated programming.<sup>153</sup> This locally originated programming was known to have included previously broadcasted network programming which had been recorded for delayed rebroadcast.<sup>154</sup> The resulting combined programming was then broadcast to the local audiences the affiliate stations.
4. Early on, the local affiliate stations produced and inserted their own local programming into the network programming via a switching network which was controlled manually. However, as technology progressed, methods for automating various aspects of the program insertion/switching process developed. Such developments included:

- 1) The development of automatic scheduling computers which could be programmed to execute a list of scheduled programming events whereby

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<sup>152</sup> Note: the first 23 lines in the second full paragraph on page 85 of the article "Master Control Techniques" by Marsden which was published in volume 9 of the "Journal of the Television Society" in 1959.

Note: lines 2-9 in the second column on page 806 of the article "The Automation Of Small Television Stations" by Young et al. which was published in volume 80 of the "Journal of the SMPTE" in October of 1971.

<sup>153</sup> Note: the last 11 lines on page 810 of the article "The Automation Of Small Television Stations" by Young et al. which was published in volume 80 of the "Journal of the SMPTE" in October of 1971.

<sup>154</sup> SEE: lines 25-41 in column 4 of U.S. Patent # 4,025,851 to Haselwood et al. which was published on 5/24/77.

the list of events automatically controlled the sequence in which scheduled programming was produced and broadcasted from a respective broadcast. Such computers were used to automate both the network television stations and affiliate television stations.<sup>155</sup>

2) The development of automated program cuing systems which included: equipment located at the national network for embedding cuing signals into the broadcasted network programming whereby said cuing signals identified the beginning and the end of each scheduled "break" in network programming; and equipment located at the affiliate stations which used the embedded cuing signals to determined the respective beginning and the respective end of each scheduled network "break" and, based on this determination, automatically cause its own scheduled local programming to be inserted into said "breaks" prior to "*rebroadcast*".<sup>156</sup>

5. Because ones of the affiliate stations were located in different time zones, equipment was required to compensate the broadcasted network programming for these time zone differences; i.e. if the same network programming was to be broadcasted at the same local time throughout the entire country. This compensation was accomplished by delaying the broadcasted network

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<sup>155</sup> Note: the last 11 lines on page 810 of the article "The Automation Of Small Television Stations" by Young et al. which was published in volume 80 of the "Journal of the SMPTE" in October of 1971.

Note: U.S. Patent # 3,761,888 to Elvnn which was published on 9/25/73.

Note: U.S. Patent # 3,627,914 to Davies which was published on 12/14/71.

Note: the publication "Microprocessor For CATV Systems" by Tunmann et al. Which was published by the Tele-Engineering Corp on 4/30/1978.

<sup>156</sup> SEE: Australian Patent Document S.N. 074,619 by Hetrich which was published 4/29/1976.

SEE: U.K Patent Document S.N. 959,374 by Germany which was published 5/27/1964.

programming which was provided to a given one of the affiliate stations, via a network of recording devices, as a function of the time zone in which the given affiliate station was located. Early on, due to the high cost of this delay equipment, compensation was provided only at the central network station.<sup>157</sup> But subsequently, as the cost of the delay equipment came down and as the use of highly expensive satellite transmission paths increased, said delay equipment began to be located within ones of the affiliate station locations.<sup>158</sup> In any event, when network programming was delayed in this manner, it was understood that any "program related data" that was carried with the network programming (e.g. such as the network cuing signals; network program monitoring codes; etc,...) also had to be delayed by the delay equipment in order to have maintained their precise timing relationship with said network programming.<sup>159</sup>

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<sup>157</sup> Note: the article "Automatic Control of Video Tape Equipment at NBC, Burbank" by Byloff which was published by the National Broadcasting Company, Inc. in 1959.

<sup>158</sup> SEE: the publication "Video Banks Automate Delayed Satellite Programming" by Chiddix which was published in 1978.

SEE: the publication "The Digitrol 2~ Automatic VTR Programme Control" by Skilton which was published on pages 60-61 of the "International Broadcast Engineer" in march of 1981.

Note: lines 25-41 in column 4 of U.S. Patent # 4,025,851 to Haselwood et al. which was published on 5/24/77.

<sup>159</sup> SEE: the first 7 lines in the first full paragraph of the third column on page 39 of the publication "Video Banks Automate Delayed Satellite Programming" by Chiddix which was published in 1978.

Note: U.S. Patent # 4,025,851 to Haselwood et al. which was published on 5/24/77.

The following discussion has been provided to further address the state of the television/radio broadcast art which existed at the time of applicant's alleged invention and, therefor, to further exemplify the context in which the applied prior art of record must be viewed. Support for the following discussion was derived from: 1) the publication "System and Apparatus for Automatic Monitoring Control of Broadcast Circuits" by Yamane et al.; 2) the Australian Patent document No. 74,619 to Hetrich; 3) the publication "The Vertical Interval: A General-Purpose Transmission Path" by Anderson; 4) the British patent document No. 959,274 to Germany; and "APPENDIX IV" of this Office action.

A) Contrary to the arguments presented by applicant in related applications (e.g. S.N. 113,329)<sup>160</sup>, it is maintained that the body of art pertaining to the broadcast of television programming the body of art pertaining to the broadcast of radio programming were, and still are, analogous arts. To suggest otherwise is to portray an unrealistically low level of skill in the art<sup>161</sup>. The following facts have been cited to show/exemplify the analogous nature of these two arts:

1. First, it is noted that radio programming and television programming were communicated through radio and television distribution networks in

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<sup>160</sup> The examiner notes that application S.N. 113,329 has already been cited in the record and therefor its citation by the examiner herein is not prohibited.

<sup>161</sup> The examiner notes that the existing national radio networks/companies naturally evolved into the national television networks/companies because the existing radio infrastructure which functioned to create and distribute radio programming could be extended and applied quite naturally to the creation and distribution of television programming. Thus, when applicant argues that one skilled in the art would not have understood that TV and Radio distribution systems are analogous arts, applicant is doing nothing less than ignoring "HISTORY"; i.e. once again applicant's arguments are so wide of the mark that they seem nothing less than silly/absurd. [note: the last 5 lines of the first paragraph of the Article "Versatile Transmission Video Facilities at NBC New York" by Mausler (page 811 of SMPTE Journal, Volume 85, October 1976)]

the same basic way/format. More specifically, both radio/television distribution networks operated to produce, sequence and distribute radio/television programming to a plurality of household radio/television receivers based on predetermined radio/television broadcast schedules. In fact, the definition of the word *program*, as it pertains to the broadcast environment, was/is: "a scheduled radio or television show".

2. By the fact that the actual configurations of the radio and television networks themselves mirrored each other element for element. For example, both systems comprised national/network stations and affiliated local/regional stations wherein the local/regional stations operated to selectively rebroadcast network programming, or to broadcasted locally produced programming in place of the network programming, to said household receivers. Almost the only difference between the configurations of the radio and television networks was that the circuitry needed to implement the television network was of a greater bandwidth than that of the radio network (e.g. the television network used VTRs in places where the radio network used ATRs);

3. By the fact that the prior art of record shows that, at the time of applicant's alleged invention, those of ordinary skill in the art themselves understood radio/television distribution networks to be "analogous arts". For example, this fact is clearly reflected in the teaching of Hetrich that his disclosed control signal distribution circuitry, while described in detail with respect to radio broadcast networks, could likewise have been used within

television broadcast networks [SEE: the first 4 lines on page 2 of the Hetrich document].

B) Television and radio broadcast networks, which comprised a plurality of local/regional broadcast stations affiliated with a respective central/national broadcast station, were notoriously well known in the art at the time of applicant's alleged invention. In fact, at the national level, the radio and television networks/stations were one and the same (e.g. NBC, CBS, ABC, etc...); e.g. wherein the national radio networks evolved into the national television networks.

The central/national broadcast station of these broadcast networks operated to create national television/radio programming and to broadcast said created programming to ones of its affiliate broadcast stations. Said ones of the affiliate stations received the broadcasted network television/radio programming and then either rebroadcasted said received network programming or broadcasted locally produced commercials/programs in place of said received network programming. The programming that was broadcast from the ones of the affiliate stations were received by a plurality of television receivers located at households within the local region served by the affiliates, and/or were received and processed by additional ones of said affiliate stations.

C) In order to 1) reduce the operating costs of said television and radio broadcast networks, 2) eliminate man made errors in said television and radio

networks, and 3) increase the efficiency in flow of programming in said television and radio networks (i.e. the "motion functions"), it became a desirable trend in the television/radio broadcast industries to have "automated" as much of the broadcast network process as was economically beneficial; e.g. where the term "automated" referred to the unmanned operation of network processes by machines instead of station personnel [note: lines 7-22 on page 5 of the Yamane et al. translation]. Early on, the processes that were targeted for automation involved: the monitoring of broadcasted programming for the purpose of determining faults/failures in the network; the monitoring of broadcasted programming for the purpose of determining subsequent program switching opportunities; the control of program flow and switching according to "confirmed program schedules"; etc, ... [note lines 9-18 on page 6 of the Yamane et al. translation].

D) As was already addressed in "APPENDIX IV" of this Office action, one of the way in which many processes performed within television/radio networks were automated was through the use of "instruction/identification/control/cuing signals" which were embedded within the broadcasted network programming. These embedded signals were not only used to monitor and identify the network programming being broadcast but were used to provide control over many of the program switching/routing/ recording operations which were performed at said affiliate stations and at the household receiver stations too [note: "APPENDIX IV" of this Office action; lines 1-6 on page 2 of the Yamane et al. translation; lines



11-27 on page 13 and lines 1-21 on page 14 of the Yamane et al. translation; lines 16-23 on page 15 of the Yamane et al. translation; the last six lines on page 18 of the Yamane et al. translation; figure 1 of Hetrich; lines 1-10 on page 2 of Hetrich; the last 9 lines on page 10 of Hetrich; the abstract on page 77 of Anderson; and the first full paragraph under the heading "Introduction" on page 77 of Anderson].

For the record, it is noted that the publication by Anderson explicitly recognized the fact that the versatility of this type of system automation could be greatly expanded if the embedded signals were capable of being addressed to a specific ones, and/or to specific ones, of the affiliate stations [note: the first three lines under the heading "Applications" on page 80 of Anderson; and lines 1-12 under the heading "Conclusion" on page 82 of Anderson].

**APPENDIX VIII**(the 8/81 article "Landmark forms cable  
weather news network" of *EDITOR & PUBLISHER* (i.e. as  
submitted by applicant))

# Landmark forms cable weather news network

Landmark Communications of Norfolk, Va., plans to begin transmitting 24-hour weather news and forecasts via satellite to over 20 million cable TV households beginning next spring.

Called the Weather Channel, its programming will combine live studio broadcasts of national and regional weather forecasts with teletext transmissions of local weather news.

Weather Channel will be offered as part of basic subscriber service and have its headquarters in Atlanta, Ga.

Landmark has invested \$20 million in the Weather Channel. The privately held communications company, with annual revenues in excess of \$200 million, publishes 10 daily and 22 non-daily newspapers including *Norfolk Ledger-Star* and *Virginian Pilot*. Its newspapers have a combined circulation of over \$11,000.

The company also owns Telecable Corp., the 15th largest cable operator with 250,000 subscribers in 14 states.

The teletext information will appear automatically on viewers' screens every five minutes and will be about a minute in duration.

The teletext weather forecasts will be supplied to local cable operators by means of a device called the Weather STAR, an acronym for Satellite Transponder Addressable Receiver. STAR will be controlled by the Weather Channel's computers in Atlanta.

Those computers have access to the data base of the National Weather Service in Washington D.C. Through the STAR, they can send "customized" National Weather Service forecasts instantaneously to a specified locality.

In addition to localized forecasts and bulletins, the STAR can send targeted advertising.

Weather STAR was developed for Landmark by Computer Video of Salt Lake City, Utah. Landmark has a proprietary interest in Weather STAR's technology.

The Weather Channel will be beamed to local cable systems over Satcom I. The network of cable systems receiving signals from that satellite has come to be known as Cablenet I and has an audience of 20 million households.

Landmark purchased its transponder rights on Satcom I on July 14 for \$10.5 million from Premiere, a pay movie service formed in a joint venture by Getty Oil and four film companies. Premiere is in the process of disbanding after being found in violation of antitrust laws last winter.

The purchase of the transponder rights EDITOR & PUBLISHER for August 8, 1991

was essential in its decision to underwrite the Weather Channel, Landmark said. Since being on Satcom I assures access to 95% of all cable households.

Satcom I/Cablenet I is the system used for transmitting Home Box Office, Showtime, Cinemax, USA Network, Cable News Network, ESPN, ARTS, and Nickelodeon. The superstations—WTBS, Atlanta; WOR, New York; WGN, Chicago, and KTVU, Oakland—also transmit over this network.

Satcom I is scheduled to be replaced by a new satellite, Satcom III-R in October. Landmark's rights to a Satcom I transponder will be transferred to a transponder on the replacement satellite.

Frank Batten, chairman and chief executive officer of Landmark, said the Weather Channel is the first of several cable "programming opportunities" which the company is exploring.

"Our main focus will be on information," he stated, but added entertainment programming is also under study.

Batten commented the concept for the Weather Channel was being researched by Landmark for several years.

"In our cable systems we've done audience surveys. We've known the weather channels, which now are alphanumeric, are watched more than any other channel," Batten said. "They're watched for short periods, but are turned on by more viewers."

Batten remarked the concept for a nationwide weather channel became closer to reality when John Coleman, meteorologist for ABC's *Good Morning America*, approached Landmark with his idea for a 24-hour weather service combining national and local forecasts.

"We had access to a man who really knew how to do it," Batten said of Coleman.

Under his new contract with ABC, Coleman will continue as *Good Morning America*'s meteorologist while fulfilling his obligations to Landmark's Weather Channel. He will broadcast for ABC from the network's Atlanta affiliate.

The Weather Channel will be totally advertiser supported. Local operators who dedicate a basic service channel to the weather service will receive it for free. They will also be provided with a Weather STAR by Landmark.

Batten explained a maximum of ten minutes per hour will be available for commercials from national advertisers. The revenues from those ads will go to Landmark.

A maximum of two minutes per hour will be made available for local cable

operators to sell advertising. Local cable operators will also be able to sell textual advertising for a "crawl" across the bottom of the screen.

The teletext capability of the Weather Channel will enable local store names and locations to be tagged onto the national ads appearing in conventional video formats.

Rahn Stanley, new ventures analyst for Landmark, said advertising agencies are "taken with the concept" of the Weather Channel. He said the channel can "develop a huge come over time."

A staff of 21 meteorologists to deliver national and regional weather forecasts is being assembled by Coleman for the Weather Channel.

Coleman said the channel will have a daily schedule of forecasts targeted for special interest groups such as golfers, tennis players, hikers, humpsters, fishers, and boaters.

He stated the Weather Channel plans to offer "a good wind forecast, aviation weather, agricultural weather," and a daily roundup of weather forecasts for the country's National Parks.

Coleman said weather warnings "addressed to specific localities" will be "automatically switched on by teletext through the STAR."

The live presentations will feature color radar, color satellite photos, and color graphics to detail weather information.

Though Landmark's Batten and Cable News Network's Ted Turner are friends, the advent of the Weather Channel has not inspired CNN to add a teletext local news service to its 24-hour broadcasts.

"We've considered from time to time having a local news cut in," said CNN president, Reese Schoenfeld. "But there's no resource like (National Weather Service) available" which collects local news into a central data base.

"The ideal solution is two 24-hour news channels," he continued. "One for local news. One for national."

Schoenfeld said the "cable operator or newspaper" would provide the local news.

## WSJ Evening News to be on cable

Wall Street Journal Evening News will begin airing on USA Network this September.

Wall Street Journal Evening News will consist of two-minute segments which will be seen at 7:28 P.M. and 7:58 P.M. EDT, and in a late night floating spot.

The segments will emphasize business news as it affects consumers.

**APPENDIX IX** (page 5 of the appendix that was attached to a  
1981 "PETITION FOR RULEMAKING" submitted to the FCC in  
which *typical* teletext data was described)

Teletext utilizes a number of the lines in the vertical blanking interval for the transmission of text and pictorial information in digital form for display on the television screen. The number of vertical blanking interval lines which may be used for teletext ranges from a minimum of one to a maximum of 12, with two lines proposed for use initially in the United States. The amount of digital teletext information which can be transmitted in a given amount of time increases in direct proportion to an increase in the number of lines used for teletext.

The first step in teletext service is the translation by a teletext editor of text, pictorial information and display attributes (such as color, flashing characters and so on) into a series of instructions to be transmitted to the teletext decoder. The instructions for each page in the teletext "library" are then broadcast continuously on a revolving basis by multiplexing the data into the vertical blanking interval. The user accesses a desired page of teletext information by entering the page number, e.g., by pressing the appropriate buttons on a control unit. The teletext decoder then selects the page from the revolving transmissions, stores the coded information in memory, and formats it to the extent necessary for a display, and produces the page on the television screen. Where captioning is transmitted, the decoder will superimpose the captioning over the normal television picture.

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of: )  
 )  
Amendment of Part 73, Subpart E ) RM No.  
of the Federal Communications )  
Commission Rules Governing Tele- )  
vision Broadcast Stations to )  
Authorize the Transmission of )  
Teletext )

PETITION FOR RULEMAKING

The United Kingdom Teletext Industry Group, Bernard J. Rogers, Chairman, <sup>1/</sup> pursuant to Section 1.401 of the Commission's Rules, files herewith, this request, that the Commission initiate a proceeding proposing the adoption of rules to allow television broadcast licensees to transmit teletext using the defined format British teletext system. <sup>2/</sup>

We submit that teletext is ripe for rapid development in the United States and we urge the Commission to proceed as quickly as is reasonably possible to allow the use of this important technology in the United States. For this reason

1/ This group is comprised of representatives of the following bodies who are interested in the British teletext system and have endorsed the present submission: British Broadcasting Corporation; Independent Television Companies Association; Independent Broadcasting Authority; British Telecoms; Department of Industry; Logica, Ltd; Jasmin, Ltd; Mullard, Ltd; V.G. Electronics, Ltd; Texas Instruments (UK), Ltd; General Instrument Microelectronics (UK), Ltd; Aston, Ltd; GEC (UK) Ltd.

2/ The specific rules which we proposed for adoption are set forth at Attachment B to our Appendix. <sup>2/</sup>

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toward the commencement of teletext service in the United States as soon as is reasonably possible.

Respectfully submitted,

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March 26, 1981

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